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ABSTRACT

This document consists of materials produced during the Workplace Partnership Project (WPP), a National Workplace Literacy Program-funded workplace literacy partnership between Alpena Community College (ACC) in Alpena, Michigan, and area businesses. Presented first is a personal reflection in which the project director shares some of the lessons learned and impacts on the community as a result of the WPP. Attached to the report are the following: 12 issues of the WPP's newsletter, which reports on project activities and outcomes; a list of WPP oversight committee members; selected comments regarding the WPP's benefits that were excerpted from a survey of participants in WPP classes; results of a survey of supervisors at one business participating in the WPP; literacy task profiles of the participating businesses; descriptions of ACC's workplace partnership reading, mathematics, and workplace communications classes; descriptions of activities conducted by ACC to meet grant objectives; sample student individualized education plans and responses to student satisfaction surveys; and a third-party evaluation commending the WPP for its strong staff, participatory approach to curriculum development, and delivery of customized instruction to more than 250 employees of 6 businesses in a rural area. (MN)

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**Alpena Community College
Workplace Partnership Project
Final Report**

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The Personal Reflection of a Project Director

By Don MacMaster
Workplace Partnership Director
Alpena Community College
Alpena, MI

Alpena Community College has been part of the National Workplace Literacy Program since 1991 and was recently awarded funding under the current three-year cycle. We have learned a great deal these past 36 months and look forward to learning a great deal more in the next three years. A few of the lessons that stand out: (1) meeting learner demand creates more demand among learners; (2) assessment and evaluation need to be customized to be meaningful; (3) practical application is key to learner satisfaction and success; (4) using computers as part of literacy instruction is often as much of a learning process for instructional staff as it is for learners; and (5) an ongoing communications tool, such as a project newsletter, helps to create and sustain a vibrant partnership between business, labor, and education provider.

Our involvement with the National Workplace Literacy Program has had significant impact on our community in five key areas: (1) workers motivated by learning opportunities created by the WPP are now driving change and innovation in a number of the companies we serve; (2) based on positive experiences in workplace classes, workers are returning to the traditional college setting for further education or

(2)

technical training; (3) the principles of applied academics at the core of workplace classes are being internalized by workplace instructors and taken back to the traditional college classroom setting; (4) workers are reporting more involvement in family literacy issues, especially as they relate to computer learning applications; and (5) businesses are reporting productivity gains and bottom-line improvement as a result of workplace literacy classes.

I can't think of a more worthwhile challenge than helping to develop the WPP. The men and women who work on this project are top-notch professionals; the men and women who take classes are top-notch professionals, too. Figuring out the best way for these people to share their knowledge so that learning takes place is one of the major satisfactions of the project. We've had a number of highlights during these past 18 months, but none more significant than the fact that our business partners stayed with us and workers keep requesting new classes. This project is growing and that's a credit to everyone involved.

Looking ahead, I see a number of areas where we can improve and develop the project. Our current project has a number of new partners representing a much wider range of our local economy, and each partner presents us new challenges and opportunities. We can't sit back and be satisfied with making minor adjustments on what we've already done. The need is too great, and the time too short.

John Engler
Governor

October 24, 1994

Mr. Don MacMaster, Director
Workplace Partnership Program
Alpena Community College
666 Johnson Street
Alpena, Michigan 49707

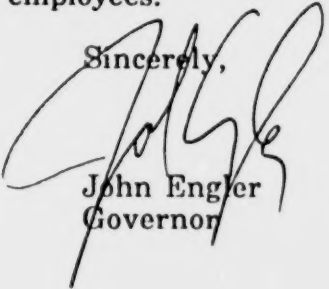
Dear Mr. MacMaster:

Thank you for the framed aerial photograph of Besser Company and the City of Alpena. It represents to me a successful collaboration between city and company.

Your role in establishing and maintaining a mutually beneficial working relationship with Besser Company is also deserving of praise. The whole community benefits as a result of this joint effort.

The best of luck as you endeavor to meet the needs of business for trained employees.

Sincerely,



John Engler
Governor

JE:gm

BOB CARR

FOR U.S. SENATE

October 9, 1994

Mr. Don McMaster
Alpena Community College
666 Johnson Street
Alpena, Michigan 49707

Dear Don:

Thank you for taking time from your busy schedule to talk with me about the Workplace Partnership program. I appreciated having an opportunity to learn more about this valuable program and to talk with students who participated in it. Based on what I saw and heard during my visit to Besser Corporation, I believe you offer a valuable opportunity for area businesses and workers.

You and the Workplace Partnership instructors must be very proud to bring this high-quality training opportunity to Alpena's workforce. As I understand it, program participants learn much more than just communication, math or reading skills. From the personal stories I heard, it seems that your program teaches valuable life lessons as well. Teamwork, creative problem solving, improved self esteem are just a few of the benefits I observed.

Again, thank you, and please extend my thanks to all the people who work with you on this valuable program. I wish you the best of luck as you continue to help local businesses and their employees grow.

Sincerely,


Kate Carr

Great work!

THE W O R K P L A C E

ALPENA
COMMUNITY COLLEGE

Volume 1 Number 1

August 1993

WORKPLACE PARTNERSHIP RETOOLS FOR SECOND ROUND

The second round of the federally-funded Workplace Partnership Project (WPP) began April 1. For the next fourteen months, the WPP team will continue to work on improving basic skills in the workplace by creating and delivering math, reading, communications, problem-solving and decision-making classes on site with business partners such as Besser Company, Baker Enterprises, Fletcher Paper Company, and Tawas Plating and Powder Company.

The first WPP ended January 31. Based on progress the first team made on working through the thorny issues of assessment, evaluation and curriculum development, the WPP was funded a second time by the Department of Education in Washington. Only a handful of the research and development projects funded nationwide were deemed worthy of refunding; the WPP is the only such project in Michigan.

A major issue facing

all workplace literacy projects is figuring out a way to measure gains, either in improved worker performance or in product quality. Little reliable data has been generated in this area



Don MacMaster
Workplace Partnership
Director

and experts are concerned that funding for research in this promising new field will eventually dry up if improvement can't be shown on the bottom line.

So the WPP has two main goals this time around: the first is to continue delivering

quality instruction to adult learners in the workplace; the second is to figure out a way to quantify the impact of what we do beyond test scores and attitude surveys. Like the workers in the businesses we serve, we always have to strive to get better. We can't forget that we're learners, too.

National Recognition for WPP

WPP Director Don MacMaster recently received notification that an article he wrote on the perils and pleasures of teaching communications in the workplace will be published in the September issue of *Lifelong Learning*, the magazine of the American Association for Adult and Continuing Education (AAACE).

The AAACE is the professional organization of adult educators nationwide.

Education Grants Provide Literacy Skills For Workers

(From the United States Department of Education)

The U.S. Department of Education recently announced the award of \$21.3 million to support 54 workplace literacy projects designed to help workers retool their literacy skills and keep pace with changing work demands.

"These efforts show what can be done to achieve the fifth national education goal of having every adult American possess the knowledge and skills necessary to compete in a global economy," said U.S. Secretary of Education Richard W. Riley.

"Education must be viewed as a lifelong activity. Through partnerships between education institutions and business and labor, we see an evolving model of how workers can acquire the critical new skills essential in our competitive international economy."

Now in its fifth year, the National Workplace Literacy Program provides grants to partnerships involving at least one educational institution and one business or labor organization, though most projects consist of several partners in each category.

Partners work together to provide literacy, ESL (English-as-a-second language), computation, problem-solving and other skills needed by workers to adapt to changing requirements for their current positions or to advance in their careers.



Dr. Rich Lessard

WPP Breaks Ground With New Partner

Recently an opportunity was presented to the WPP disguised as a challenge. A new partner, Tawas Plating and Powder Company, had some significant communications barriers that had been building over time and were affecting morale and production. Company President Kevin Jungquist, a young and progressive manager

More than 28,250 workers employed in a broad range of occupational fields -- manufacturing, hospital and health care, hospitality, construction, and food processing -- will be served this year.

trying to break down these barriers, opted to try the communications class offered by the Workplace Partnership.

While working on basic skills such as writing and listening, the pilot group focused on generating a list of ideas for quality improvements which they presented to Jungquist on the last day of class.

Looking over their list, Jungquist praised the group for the way they'd worked together.

"That's exactly what I wanted to see come from this course," he said. "Should we keep going with another group?"

"Absolutely," they replied.

Dr. Rich Lessard took over with the second group and has been making impressive gains in the area of problem-solving. Read about their work in the next issue of *The Workplace*.

The ACC - Penn State Connection

The Pennsylvania State University Institute for the Study of Adult Literacy will again be the evaluators of our workplace project.

Under the direction of Eunice Askov, the Institute is one of the leading authorities in the country on workplace education.

The link with Ms. Askov helped bring about our involvement in Project Lifelong Learning, the PBS documentary narrated by Edwin Newman that aired last spring.

Two members of her staff, Barb VanHorn and Bernice Sheaffer, were significant contributors to the start-up of the first workplace project and remain friends and valuable consultants.

The Penn State connection means credibility and visibility for the Workplace Partnership and for Alpena Community College.

Progress Report

Students Served: 35
(Unduplicated): 28

Classes Delivered:
-Workplace General
Math
-Workplace
Communications
-Workplace Problem
Solving



Janet Fulton

Reading Instructor

New WPP Course Offering:

Reading And Information Management

Are you overwhelmed with the deluge of information assaulting you daily?

Do you need to create order out of your paper chaos?

Do you want to increase your personal reading satisfaction and effectiveness?

The Workplace Partnership Project is offering a new course to meet these needs. "Reading and Information Management" will explore strategies to help you:

1. Understand your particular learning style,
2. Strengthen your reading strategies,
3. Explore specific

organizational techniques.

All of these strategies will help you simplify and then organize your reading and information management needs.

People learn and organize their lives differently. Because this is true, you can expect the course to include assignments leading you in individual reading selections, reflective writing, computer lab applications and group discussions. Classes will be interactive. All of these strategies are designed to help you create order out of your chaos. Remember:

"Organizational techniques are the shock absorbers of life."

- S. Felton

WORKPLACE VOICES

By Don MacMaster

During my days as a cub reporter, I once had the opportunity to interview Sparky Anderson, manager of the Detroit Tigers. Having grown up on a nightly diet of Tigers on the radio, I was nervous and excited about finally entering the inner sanctum, the nerve center where all strategy was hatched. Anderson was gracious and down-to-earth, qualities which no doubt have contributed to his longevity and success, and he set me at ease with one of his curiously phrased astute observations: "Son, if you don't open your mouth, you can't eat."

The white-haired skipper's point was well-taken. As a journalist, nervous or not, I had to ask questions. It was my job to engage the man's mind.

A plaque on his office wall caught my eye. It read: "Every 24 hours, the world turns over on somebody who thought he was on top of it."

"What's that mean to you, Sparky?" I asked.

"I'll tell you a little secret," he said confidentially. "You can't ever stop learning. That's what it's all about."

Sparky's concise definition of lifelong learning is the basis of our whole approach. We believe that learning is more process than product, that learning how to learn is more valuable than a warehouse of detail.

The world changes at a blistering pace, challenging us to either change with it or get left behind. Nowhere is that challenge more evident than in the workplace, where every day men and women discover that their old skills, once highly valued, are now obsolete.

We see these men and women in our workplace classrooms, plus many others who are thriving in this competitive work environment, and they demand more from us than a mastery of jargon. Canned curriculum and textbook theory does not fly in the workplace, nor does the lecture format. Adults in the workplace want to know why; they want us to respond to their needs, not the other way around; and they want something practical out of their time in class they can use either on the job or at home. In short, they want us to make it real.

Exploring how this can be done more effectively is part of the rationale behind this newsletter. We plan to publish on the last Thursday of every month from now until the end of September '94, when the second workplace grant ends. I'm excited about the opportunity to use this forum to discuss some of the issues that effect workplace education. If you have any questions, please feel free to call me at (517) 356-9021 Ext. 344. Or drop a note in the mail. I'm happy to address thoughtful commentary.

THE WORKPLACE

ALPENA
COMMUNITY COLLEGE

Volume 1 Number 2

(517) 356-9021 Ext. 344

September 1993

Communications at Tawas Plating: A rebuilding process

By DR. R.D. LESSARD

When I first heard about these classes and was asked to take one, I thought, "Oh no, I'll have to put up with this up-tight old professor who's gonna make assignments and give us tests and all that." I'm glad it wasn't like that at all. You listened to us and let us work on what we thought was important.

(A WPP student)

These are kind words; they acknowledge what we have tried to do at Tawas Plating. These men once again have demonstrated the importance of structuring our WPP classes to meet the students' needs rather than following our own "hidden agendas."

We have enjoyed tremendous support from the people at Tawas Plating. The plant is small so the president decided to give 85 percent of the employees, supervisors and production workers alike, an opportunity to enroll. (Probationary employees will not be taking classes at this time). This level of participation may afford us an opportunity to more fully measure our impact on a working environment.

We have used the "process ap-

proach" in the classes there, while the groups created some structures which will help improve communication in the plant once the classes are finished. In the process of drafting the various proposals, we have done a great deal of collaborative writing; in preparing to

"Each phase of life requires a different kind of learning, and at the adult level it means closing the gap between school and work and creating a seamless and universal system of lifelong learning opportunities."

Richard W. Riley
Secretary of Education
Adult Learning Journal
July/August 1993

present ideas to management, the men have been called upon to find the most effective language to use in approaching others with changes in the workplace.

The pilot group stayed on for a second session in problem-solving, devising "Employee Progress Reports" for supervision and production workers alike, designed to generate more positive feedback. The next group developed a "Communication

Flow Chart" to ensure that key people are informed of all technical changes and mechanical adjustments made during the workday. Another group presented a plan to reinstate "Quality Circles," a forum for workers' ideas on improving plant operations. Their model made it

possible to draw everyone into the circles, while only tying up a few people at any given time to keep production lines running while the circles meet. The latest group realigned the training program in an effort to get new workers off to a better start. They intend to help produce a video training for new employees.

By the feedback we are getting on an informal basis and from our exit surveys, we are realizing some positive, albeit intangible changes there. It looks encouraging, but there is a great deal of work for the men to do, and the hardest part, sustaining the changes they have put in place, will have to be done after our classes are over. In the most practical sense, this could be the acid test of our effectiveness there.

Don't overlook educational software

By JANET M. FULTON
Lead Reading Instructor

Like it or not computers are here to stay. The information age demands some form of computer awareness. Each day a new or revised product is introduced onto the market. The table of contents of any computer magazine reveals a proliferation of programs. Spreadsheets, databases, graphics and design, multimedia, project managers, utilities, accounting, personal information managers, programming, word processing communications, games, and networking programs are among the most popular. But don't overlook educational software.

One of the most non-threatening and enjoyable ways to begin an introduction to computers is through educational software programs. Learn while you learn is the theme in these instances. Programs are purchased completely designed and fully operational. It is easy for any student to turn on the computer, load the program, and begin. Each program highlights a particular skill that is important for students to master.

The Workplace Partnership Project uses both word processing and educational software in its basic skill course offerings. In fact, the partnership saw the true benefits of "authorable" software when Don MacMaster (former Communications Instructor) and Janet Fulton (Lead Reading Instructor) teamed up to create some high interest student materials.

Don's Communication class completed an assignment in which each member wrote a personal summary of their job at that com-

pany. At that same company I taught a reading class in which I wanted to maximize student interest with good reading methodology. To accomplish this we secured permission from the communications class to include their writing project into the text reconstruction computer program "Rhubarb." In "Rhubarb," the text is hidden. The title of this article, for example:

Don't overlook educational software

would read:

*Rhu'b arbRhuba rbRhubarbRh
ubarbRhu*

Each reading student was fasci-

(Continued on page 3)

Survey comments:

The WPP team recently mailed a follow-up survey to everyone who took workplace classes in the first round (September 1991 - December 1992). Specifically, we wanted to know if the classes had any long-term impact on attitudes toward lifelong learning, community involvement, family issues, or job status. Listed below are some replies.

"I feel I am more confident in my communication and decision making."

"I still use trig at work."

"I've purchased a new computer and am trying to apply new skills with personal bookkeeping."

"I've become the leader in my department."

"I don't let the unknown scare me as much any more like it used to."

"I'm beginning to *enjoy* reading. I used to read only when I had to. Now I read for pleasure and fun. I read faster and comprehend more."

"I'm not as defensive. I try to understand both sides."

"I was successful at passing the Senior Inspector's test because of math and trig skills polished by WPP classes."

"I've become more aware of local politics and business since the WPP reading course."

"I went back to college. Two more classes at ACC and I will have an Associates Degree. I wouldn't have gone back to college without the WPP."

"I have seen the importance of constant learning and how it applies to daily life, especially in the workplace. It has given me the comfort of a good foundation to be better able to accomplish my job. Also to accept and adapt to different tasks and jobs."

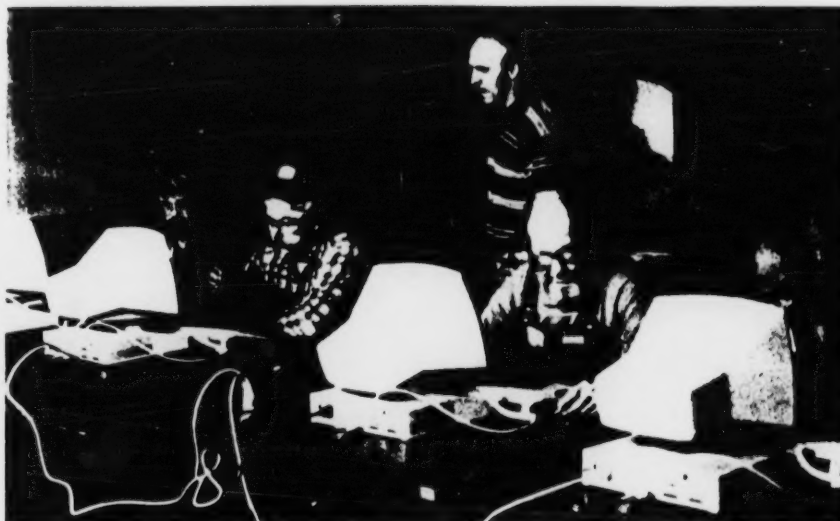
A story of success at Besser Co.

The safety room upstairs at Besser Company is busy this afternoon. Four men from Department 50 are sitting at computers, learning the BAMCS (BAYmax) system. Tom Ludwiczak, a co-worker, is the instructor.

"Remember," he tells them. "You can't hurt the terminal, can't hurt the mainframe. If you get in trouble, you can always shut it off and start over."

This is timely and supportive advice because the men are leery of making mistakes. As he gives them the command prompts to bring up different screens, they listen well and take notes. Ludwiczak is animated, thorough, clear, informative and knowledgeable — an excellent teacher. Like a number of his peers he'll have in class over the next few weeks, he has taken WPP classes.

BAMCS is the integrated soft-



Tom Ludwiczak (standing) teaches the BAMCS computer system to co-workers at Besser Company (from left) George Eades, Ken Smith, Bob Frantz and Ted Lucas. A CNC boring mill operator, Ludwiczak says he enjoys helping the men make the link between theory and application by tracking specific items.

ware system Besser uses throughout the plant. The system tracks work in progress, manufacturing data base, shop floor control, and inventory control. Though the system has been in place two years, many workers on the shop floor have not learned how to access this information; often the

supervisors or the department leader have to bring this information up for them. Ludwiczak's hands-on training sessions are changing that.

Watching them work, it's clear that there's a success story unfolding here. This is workplace education taken to the next level. In this small room, with the sounds of forklifts and metal and country music filtering up from the shop floor below, lifelong learning is moving from theory to practice.

Educational software

(Continued from page 2)

nated with the process. They remained much longer at the program solution than before the inclusion of the company authored materials. We often heard them commenting on the voice in which a person had written. They paid particular attention to the vocabulary trying to think about the person who may have written that selection. It increased their reading skills and abilities without being laborious and boring.

Business computer applications

are important. We need to learn and upgrade our computer literacy skills to compete in a changing economy. The best introduction for many may be through educational software. It builds confidence while it teaches us to master basic skills necessary for continued educational development. With a little creativity, time and effort, authorable software can lead instructors into a new world of interest!

Progress Report

Students Served:	50
(Unduplicated):	43

Classes Delivered:	
— Reading and Information Management	
— Workplace General Math	
— Workplace Communications	
— Workplace Problem Solving	

WORKPLACE VOICES

*By Kevin Jungquist
President: Tawas Plating Co.*

Have you ever thought you had the proverbial "tiger by the tail" one day just to have it turn around and bite you the next? Maybe I did not truly believe I had the "tiger by the tail," but I did believe I had a pretty good grip on it. One day I noticed my grip was slipping and when I had some serious conversations with Don MacMaster from Alpena Community College, I realized help was needed. He approached me with some ideas for in-house continuing education that could take place at our facility. We agreed on a time frame, but needed to arrive at a consensus on the subject matter.

Surveys were distributed among all the company team members to determine what their needs were. I assumed computer skills and math skills would top the list. They were important, however, we heard other voices during the survey. Voices telling us of the need to re-educate ourselves with respect to basic communication skills that would allow communication between all facets of our organization. Therefore, the decision was made to have Don (and later Dr. Richard Lessard) come to our facility to instruct us on workplace problem solving.

Our company had *quietly* arrived at a juncture where we needed a major overhaul. The extreme pressures to compete in a global economy, reduce the cost to our customer while accelerating quality standards and staying ahead of today's strict environmental laws had suddenly meant we were too busy to communicate with each other. We were taking each other for granted. We assumed everybody else in the organization explicitly understood the pressures each of us were under and we became angry and frustrated when team

members did not act as we saw fit. "Just in time" inventories meant that our customer's sudden rise in production or dwindling inventory quickly became our problem. Our management turned around and handed that "problem" to the production workers. But, whom did production have to hand it to? Each other? Their families? Management? I believe it was a mix of all three. If the company was viewed from the outside, it appeared to be flourishing. Deliveries were made on time to our customers and the quality of the work was second to none. On the inside a gap in communication was expanding, frustration was high and morale was low.

The classes are a tremendous success with management and production participating and working together. Each has learned that others have a voice that needs to be heard and that their concerns and ideas are important. If we can tap into the concept of cooperative thinking, the possibilities are endless. We extinguish the flame of this type of communication, and we have lost one of our most valuable assets. We can not survive in today's economy as a divided work force. If we continue to fight each other, we have nothing left in ourselves to fight the real "enemy" — our competition.

By evaluating the obvious indicators in any business we should be able to quantify the success of this training. I am very confident that the results will be exciting. All the achievements, which are numerous, made by these classes are born of the input by each class member, Don MacMaster, Dr. Lessard, Alpena Community College and the governmental agencies that provided the funding.

Thank you for helping us!

THE WORLD ALPENA COMMUNITY COLLEGE

Volume 1 Number 3

(517) 356-9021 Ext. 344

October 1993

A Cyclone passes through Baker Enterprises

By DON MacMASTER
WPP Director

During a recent plant tour of Baker Enterprises, a visitor asked Tom Neumann, General Manager of Baker, if he saw any tangible measure of improvement in his workforce due to Baker's participation in WPP math classes.

"Right over there," Neumann says, pointing toward a work team finishing construction on a massive industrial dust collector called a Cyclone.

"Before we got involved in workplace classes, the men wouldn't have been able to do that job on their own. I would've had to calculate all the angles for them. But now that a fair number of them have had trig and learned how to use the scientific calculator, they can go ahead and figure the angles themselves."

The dust collector stands at least twenty feet above the shop floor, stabilized at the base by an intricate lattice of iron bracework. Using applied trig — the men call it "shop math" — that they learned in Kendall Sumerix's WPP math classes, the men calculated the taper in the body, the length of the legs, and the compound mitres where the legs and body meet. Peering up at them from behind our safety goggles, we can see the men are nearly done; this Cyclone will be shipped tomorrow.

Pride in the men and the progress they've made comes through as

Neumann bottom-lines it: "They did this job on their own."

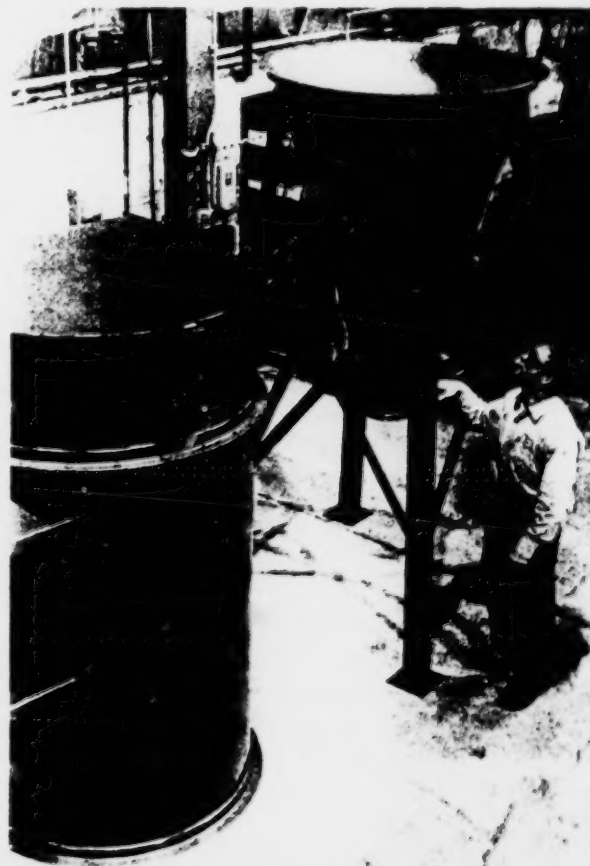
Baker's involvement in the WPP began early in 1992 when Neumann and Kendall Sumerix, the WPP math instructor, sat down to assess the needs of the Baker workforce and develop a curriculum to specifically address those needs — metric conversions, right angle trig, scientific calculators, areas and volumes, applied algebra, and plane geometry.

"Used to be," Neumann jokes, "that when I mentioned the work *pi*, the men would ask what kind. I think we're beyond that now."

Neumann has proven to be an ideal business partner. A straight-shooter with a lot of credibility in the shop, he knows what he wants to get out of the project and he has realistic expectations for how quickly it can be done. Workplace education is part of an ongoing plan, he says, to help his workers acquire the

skills that will keep them employed as Baker's business continues to expand and diversify.

"I can't give you any hard numbers yet," Neumann says, returning to the original question. "But I've seen some definite improvement. I'd say there's probably five of them now who don't need their work checked anymore."



Joel Suszek, sheet metal worker A class, gazes up at the bottom half of a Cyclone. The top half is at left.



Dr. Eunice Askov (above) of Penn State University reviews the grant with WPP Director Don MacMaster

Penn State visits ACC

Dr. Eunice Askov, Director of the Institute for the Study of Adult Literacy at Penn State University, recently visited Alpena to take a look at the WPP.

A nationally recognized author and researcher in the field of adult and workplace literacy, Dr. Askov looked specifically at methods of evaluating the impact of workplace classes on a workplace, data gathering methodologies, needs assessment, portfolio assessment, and documentation issues.

As outside evaluator and consultant, Dr. Askov's counsel will help us improve the project. If we get refunded, a share of the credit must go to her.

Progress Report

Students Served: 90
(Unduplicated): 81

Classes Delivered:

- Workplace Trigonometry
- Workplace Writing
- Reading and Information Management
- Workplace General Math
- Workplace Communications
- Workplace Problem Solving

Survey comments

The WPP team recently mailed a follow-up survey to everyone who took workplace classes in the first round (September 1991 - December 1992). Specifically, we wanted to know if the classes had any long-term impact on attitudes toward lifelong learning, community involvement, family issues, or job status. Last month we printed some of the responses to the survey. Below is a continuation of that list.

*** **

"Math helps me on the job and now other workers come to me for help."

"When I have trig problems to do, I just go ahead and figure out the angles. Before I had to wait for engineering."

"It showed me even at my age, I can still handle a classroom situation."

"It seems easier to learn now than it did when I had these classes in high school. Mostly because I want to learn them now, as before I felt it had no impact on the real world."

"Kendall Sumerix taught this old bird more than math. He taught me that I'm not too old to learn."

"I took a class on workplace reading CNC. Since then I got a job on a CNC machine. The reading class was great. I still use some of the skills I learned."

"More deference (is being) given to my opinions by others in my life."

"I can still hear words that I studied in Reading class."

"I feel my writing skills have improved greatly. Style, content, punctuation, all have improved."

"I'm more confident when I speak publicly."

"I try to understand both sides of the story — try not to jump to conclusions or assume as much."

"The class enhanced my reading speed and in turn has enhanced my ability to absorb information on a daily basis."

"I believe it made me a better employee, knowing the company I work for cares enough to help educate me."

*** **

The survey summary points out that 56 percent of the respondents furthered their education since their first WPP class, 76 percent said it was the WPP that encouraged them to continue their education, 37 percent find themselves helping their children more with homework and 42 percent are reading or writing more. Also, 60 percent are more comfortable operating computers, 35 percent have purchased computers and 65 percent said they have enjoyed salary increases, promotions or new job responsibilities since taking WPP classes.

Math instructor enjoys his role in the workplace

When it comes to teaching in the workplace, WPP math instructor Kendall Sumerix finds an atmosphere quite different from the Alpena Community College classroom.

"These people have personal reasons for attending the class, not only for work but because they want to know this information," Sumerix said. "They go to great lengths to get what they want.

"The workplace gives me a text and context which I use for examples. I can tailor the math students' 'need-to-know' and can show how it works in terms of their jobs."

Sumerix, a native of rural Alpena County, said he grew up working with machines and tools and found it wasn't difficult making the transition from an academic to the industrial environment.

"I see people who probably did not succeed in an academic setting who are able to succeed in workplace classes because it is not all theoretical jargon. The material is useful, hands on, here's how it works and why."

Sumerix said every class he teaches requires a different set of materials and an entirely different set of problems.

"There's no such thing as mathematics for the workplace. It doesn't exist. If I'm able to bring material down to a level of practical experience, then I have a captive audience."

A member of WPP team since the program was first funded, Sumerix has taught classes at Besser Company, Fletcher Paper Co., and Baker Enterprises, Inc. He has instructed classes in physics, physical science, chemistry and math since coming to ACC four years ago.

Sumerix shares some of his workplace philosophy on page 4.



Mathematics Instructor Kendall Sumerix explains a problem

Tawas Plating Revisited

Dr. Richard Lessard recently finished his fifth WPP communications class at Tawas Plating. About eighty-five percent of the employees — thirty-three men — have completed sixteen hours of instruction in collaboration and problem solving, and feedback from both workers and management has been quite positive. We distributed exit surveys asking the men to rate on a scale of 1 - 5, with five the highest, how they felt about their WPP classroom experience and its potential for application to their personal and professional lives. Here is a summary of what the five groups said about their classes:

- On a five point scale, they felt communication in the workplace improved an average of 1.31 points, from 1.66 to 2.97.
- The men credited the communications classes with most of this improvement at 4.07 on a five point scale.
- The men felt that the problem-solving projects that they worked on in class will be very valuable if instituted by the company — 4.34.
- Rating the overall impact of the classes on company productivity, the average score of all five groups was 3.59.
- They rated the overall impact of the classes on their communication and/or problem-solving skills outside the workplace slightly higher — 3.69.
- They felt more confident in their learning abilities after taking the classes — 4.00.
- They felt confident that they could now be a productive and contributing member of a group — 4.24.
- They felt good about how the group helped each other and shared information — 4.5.
- They felt that the information covered in class was of real, practical value to them — 4.59.
- They felt they had a voice in what took place in class — 4.41.
- They thought Dr. Lessard was organized and helpful — 4.83.
- They were comfortable asking Dr. Lessard questions — 4.7.

We thank everyone at Tawas Plating for their support. We've seen signs of progress in communication and problem solving. With continued cooperation, we will begin to track key indicators over time as part of a long-term examination of the impact of these classes.

WORKPLACE VOICES

*By Kendall Sumerix
WPP Mathematics Instructor*

Shop math, as the men call it, is quite a bit different than traditional mathematics. They don't use all the intricate little details and principles and proofs of what you'd consider to be math. Shop math to them is applied math. It's how you use math to find an answer that will allow you to make a part. They don't want or see any need for information that doesn't directly apply to what they're doing in the shop.

The first time I taught Trigonometry in the workplace, I had somewhat of an idea but I still didn't know for sure what we were supposed to be doing in there. I kept coming back to, 'What do they need to know?' I ruled out algebra because I could've spent sixteen hours on algebra and we would've never gotten to trigonometry. From my perspective, we couldn't teach right angle trigonometry without a little geometry. So I went back and thought, 'What do I need to know to teach trigonometry?' You need to know something about a triangle, the parts of a triangle, legs, sides, how many sides a triangle has — most people knew that but there were some that didn't. So I went back and we talked about triangles, angles, and how the sum of the angles of a triangle are 180 degrees. And then we drew some triangles. And that was the first day of regular class instruction.

The second time we met, we talked about the Pythagorean Theorem, which means that we had to lay out the theorem and explain how it came about and why it worked for right triangles. When they saw that it enables us to take two sides and find the third measurement, that was great. Suddenly these people were turned on because they were making significant gains — things they could apply. And yet, initially

I felt bad, like I was cheating them. Or cheating the system. Or the college. Or somebody. I felt a little bit guilty because I thought this is not the way it's taught.

The traditional approach is you grind in mathematics and arithmetic. Then you step up and teach them all about algebra. Then they've got to know all the things about geometry, all the proofs, and then you start with trigonometry. I thought, this is backwards. Here I am — not teaching all the geometry, hardly teaching any algebra, they didn't even know how to run the calculator and some of them weren't even good at arithmetic. And I was jumping into trigonometry.

But you know, that sparked an enthusiasm in the class, the fact that they could do something that they could take back and use. Even though it was way over their head. And I'll be darned if by the end of class everyone could do some right angle trigonometry. There was only one or two out of the fifteen who you would call marginal — they could do some of it but not all of it. Everyone else in that class could do the right angle trig necessary.

I've since gotten over the feeling that they're missing something. Seeing their progress and what they need to know, I really think I'm doing them justice. Seeing what they need to know to survive and giving them the skills they need takes away that anxiety. You just come to a point where you say, "I don't care; they're learning what they need to know to succeed on their job."

They do come through. They will think together. They will work together. The harder you make it, the more they like it. And if you don't challenge their minds and get them moving, you're not going anywhere.

WORKPLACE

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(517) 356-9021 Ext. 344

November-December 1993



The Year in Review



It's been a busy year for the Workplace Partnership Project. We've learned a lot. In this year-end edition, we'd like to take the opportunity to share some of our project highlights and accomplishments.

— WPP instructional team has developed four new courses based on learner need and feedback — Workplace Writing Improvement, Workplace Problem Solving, Reading and Information Management, and Workplace Algebra Applications.

— WPP team has created a monthly newsletter called *The Workplace*, which is currently being mailed free of charge to all business partners, to every worker who's taken WPP classes, to every worker who took classes in our first WPP project (April 1, 1991 - Jan. 31, 1993), to our external evaluators at Penn State, to Jeanne Williams, Education Secretary Richard Riley, and President and Mrs. Clinton in Washington, to the State Literacy Outreach Center at Central Michigan University, to all ACC faculty, administration, and Trustees, and to other workplace literacy providers and experts across the nation.

— WPP team has developed productivity impact studies for each company where classes have been taught based on input from workers and management as well as resource materials such as *Evaluating the Impact of Workplace Literacy Programs* by Paul Lloyd and Dr. Larry Mikulecky.

— WPP team has surveyed all learners who took classes in the first Workplace project, asking them to assess the long-

term impact of their workplace classroom experience on lifelong learning, family literacy issues and job status. Results have been tabulated and published in *The Workplace*.

— WPP team is working with the Penn State Institute for the Study of Adult Literacy on innovative and effective ways to using portfolio assessment in the workplace.

— WPP team is working with the State Literacy Outreach Center at CMU on staff and program development through the use of two-way interactive video link-ups.

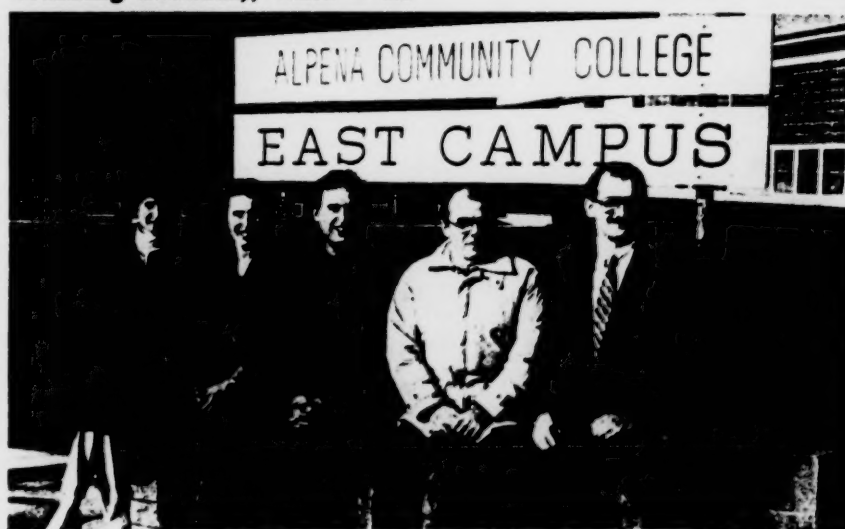
— WPP project director was published in the September/October issue of *Adult Learning*, the magazine of the AAACE (American Association for Adult and Continuing Education), which is the

professional organization for adult educators nationwide.

— WPP project director was notified by ERIC that the document generated at the conclusion of the first Workplace project was selected for announcement in the September issue of *Resources in Education*.

— WPP project director has presented at three professional conferences.

— WPP instructional team, called "top-notch" by Dr. Nickie Askov from Penn State, continues to develop quality functional context curriculum based on learner input, emphasizing the process approach to instruction with a comprehensive blend of qualitative and quantitative measurements.



Happy Holidays from the Workplace Partnership Project Team, from left: Janet Fulton, Ann Schultz, Director Don MacMaster, Richard Lessard and Kendall Sumerix.

Workers address reading objectives in the workplace

Reading plays an important role in today's "high tech" society, no matter what position an employee has in the workplace. Janet Fulton, who has spent 13 years in the field of linguistics and literacy, addresses that area as reading instructor in the Workplace Partnership Project (WPP).

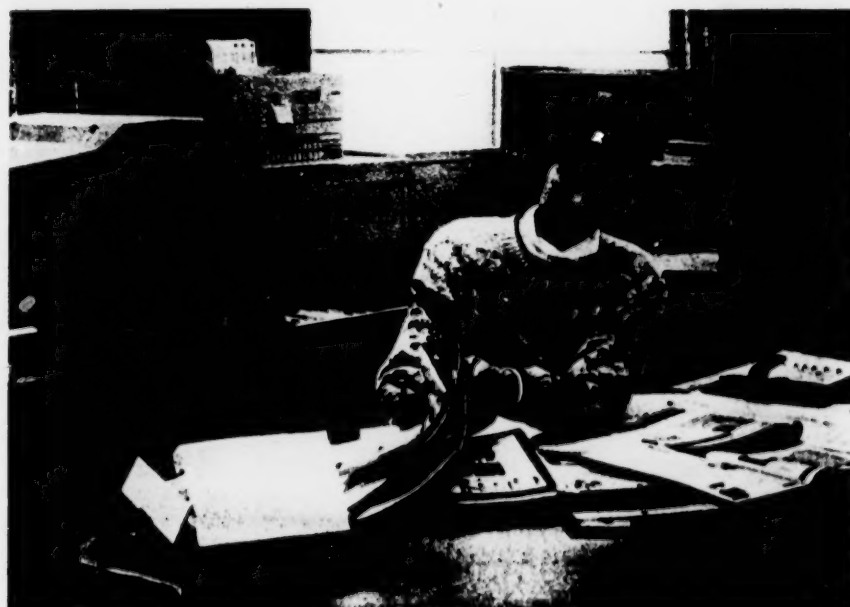
"Everyone from a beginning entry-level person in the company to middle level and higher management, even CEOs, deal with the same problems that we all deal with," says Fulton. "They must read faster or more effectively and know how to process the information they get."

"If you store it (information), how can you retrieve this or can you make the linkage between storage and retrieval? How much do you have to keep in your mind and how much do you have to keep as reference material? In the teaching of the reading process, I can be helping businesses in any part of that spectrum," Fulton said.

Fulton has taught classes both at Besser Company and Fletcher Paper Co. since joining the WPP team and notes that she has faced a different set of goals at each location.

"The beginning classes had all those different levels, or as many as were represented in one class. If I had slower readers in the class, I would either work in groups so that they would pace approximately the same," Fulton said, "or I would have additional reading exercises for those that were quicker readers. Then you weren't embarrassing anyone while still helping each one to remain actively involved."

"What has been effective recently is integrating some (computer) software whereby students would read at their own pace but for the same amount of time. Then the program gives them an



Reading Instructor Janet Fulton searches through catalogs for computer software that could be utilized in teaching future classes in the workplace. (WPP Photo)

application for their particular reading pace or needs."

Fulton said people generally believe that you read one word at a time, then bridge into sentences and paragraphs. "Most have stopped at the sub-vocalizing level, which means they can only read as fast as they speak but not out loud. Their mind is functioning a lot faster than they are taking in information so they are not engaged in the material. Forcing yourself to read more quickly really helps be more focused and retain more... We try to increase reading speed, not for the sake of speed, but for developing comprehension."

Fulton identified vocabulary development as one of the roadblocks to comprehension. "If people don't know how to actively increase their vocabulary, they are not going to have the framework to read more effectively..."

At Besser Co., Fulton said she had students bring in shop manuals for the company's computer numerically controlled (CNC) milling machines. "I was learning the vocabulary right along with them so I had a real feel for what it was to work at understanding words and concepts."

Fulton, who resides in Rogers City with her husband Sidney, said she is glad to see the linkage between business and industry and education. "With the demand of the global economy becoming a reality, the two need to become a partnership and I am really happy to be part of that."

Fulton holds a bachelor's degree in speech and communications from the University of Oregon. She was an English as a Second Language instructor at Texas Wesleyan University, has taught adult basic education in Fort Worth, Texas and had been a coordinator and instructor for Summer Institute of Linguistics in Texas and the Solomon Islands. She is currently coordinator for the Alpena County Library's adult literacy program.

Progress Report

Students Served:	95
(Unduplicated):	86

New class offering:
— Workplace algebra applications

The NALS survey: A nation at risk?

The most important document to appear in the field this year was the National Adult Literacy Survey (NALS), a five-year study conducted by the Educational Testing Service for the U.S. Department of Education. Twenty-six thousand Americans took part in the study, which involved performing a series of applied literacy tasks and then answering a set of background questions on their education, work history, reading practices and demographics. "This is a wake-up call for every American," said Education Secretary Riley when the report was released on September 8.

According to the study, nearly half the adults nationwide — or 90 million persons aged 16 or older — performed in the lowest two levels of the five levels of literacy defined. Participants in Level 1 were generally able to locate the time and place of a meeting on a form, total an entry on a deposit slip, and identify a piece of specific information in a brief news article. Participants in Level 2 were generally able to calculate the total cost of a purchase or determine the difference in price between two items. They could also locate a particular intersection on a street map and enter background information on a simple form.

But individuals in Levels 1 and 2 were much less likely to respond correctly to more challenging literacy tasks that required them to integrate or synthesize information from complex or lengthy texts, or to perform quantitative tasks that involved two or more sequential operations in which the individual had to set up the problem. Yet, 70 percent of the adults in the lowest level and 95 percent in the



Janet Fulton, WPP reading instructor, demonstrates a reading improvement software program to three interested oversite committee members. From left: Ray Merrill and Gordon Udell from the Besser Company, Janet Fulton (standing), and Jackie Timm, student support services director at ACC. (WPP Photo)

second lowest level described themselves as being able to read or write English "well." In other words, they did not perceive themselves to be at risk.

The study also documented a clear correlation between literacy and social and economic opportunity. Nearly half of all adults in Level 1 were living in poverty, compared with only 4 to 8 percent of those in Levels 4 and 5. Individuals demonstrating higher levels of literacy were more likely to be employed, work more weeks in a year, and earn higher wages than individuals demonstrating lower proficiencies. For example, adults in Level 1 reported working an average of only 18-19 weeks in the year prior to the survey, while those in the three highest levels reported working about twice as many weeks — between 34 and 44. Moreover, individuals in the Level 1 reported median weekly earnings of about \$230 to \$245, compared with about \$350 for individuals in Level 3 and \$620 to \$680 for those in Level 5.

"Literacy can be thought of as a

currency in this society," concluded the authors of the report. "Just as adults with little money have difficulty meeting their basic needs, those with limited literacy skills are likely to find it more challenging to pursue their goals... Even if adults who performed in the lowest literacy levels are not experiencing difficulties at present, they may be at risk as the nation's economy and social fabric continue to change."

Alpena Community College

Millage Renewal Election

Feb. 1, 1994

Remember to vote!

Standardized tests: Testing what, for whom?

By R.D. LESSARD

Often in the WPP classes we are called upon to administer standardized entrance and exit tests. This is traditionally met with overwhelming apathy, by both students and teachers alike. When students aren't sure of just what they need or what they already know, tests can help find these out. Many times our students know something is missing but they are unable to put a handle on just what it is. But testing, just for the sake of testing, or testing as a motivational strategy for WPP students (who traditionally are highly motivated and focused already) is simply unsound. So, we must resist absolutist philosophies and use tests when they serve a clear purpose, but we should spend our limited time on other things when they don't.

Thus, it becomes a question of testing what for what purpose? A good score on a contrived test can dishonestly imply that a student has "arrived" somewhere; and in a modern age requiring lifelong learning, stu-

dents can ill afford to rest on any laurels insinuated by a good test score. A bad score reminds too many students that, once again, they can't do a job. A bad score on an entrance test and a good score on the exit test implies that the students (and our classes) have done an outstanding job, which isn't difficult to accomplish if we teach to the tests. But we are supposed to be teaching to the goals and the needs of our students. Tests shouldn't set the curriculum or the standards, nor should teachers teach to tests rather than the objectives of students. We can't afford to be doing things strictly for the purpose of evaluation; students should be doing nothing that they would not be doing anyway in order to learn what they want/need to know.

In reality, standardized tests compare one student or class to another, but of what real value is this beyond the academic world? The way our employers and employees measure the worth and depth of knowledge is by performance in the world outside

the classroom — how well people comprehend and use ideas, digest and use new information, and conceive solutions to problems. Tests simple and cheap enough to permit comparisons or to administer universally can never do justice to the depth and complexity of the varied workplace, or of "higher literacy," the ability to think critically and apply information. If they could, there would be no need for them; those people who could master the above would be obvious, even to the most casual observer.

It makes more sense to trust our partners and our students, to ask them the benefits of what they chose to do in class. Also, we can observe the processes we emphasize, for if they are sound, the products will improve — even after we leave the classes. If students have the resources to develop the processes covered, and if they feel more confident in their learning abilities, they are far better off than if they are destroyed by a poor score or falsely inflated by a good one on some contrived test.



**Time for classes
at Fletcher Paper**

Math Instructor Kendall Sumerix works with a group of Fletcher Paper Co. employees on algebra and spreadsheet applications to solve problems and create forms and graphs. The class meets in the mill training room using portable computers supplied by the Workplace Partnership.

(WPP Photo)

Assessment in the Workplace classroom

The WPP uses a range of assessment instruments to measure learner performance in workplace classes. The TABE (Test of Adult Basic Education) is given at the beginning of class to establish a baseline standardized test score, then given again at the completion of class to measure if gains have been made. A second assessment device is the criterion-referenced test, also administered pre and post, which is devised by the instructor and designed to focus on the material covered in class. A third tool is the IEP (Individual Education Plan), completed and signed by the adult learner, which nails down his/her goals for the course at the outset. At the conclusion of the course, exit surveys are given, allowing learners to respond on a five-point scale to questions pertaining to the quality of instruction and how well the course met the needs they identified in their IEP. In most cases, these exit surveys include open-ended questions that allow learners to address issues such as the extent of application of the material covered in class to their personal or professional lives or any changes in their attitudes toward learning that they attributed to their workplace class. These four devices provide most of the quantitative data generated in WPP courses.

A fifth assessment device is the portfolio, which functions on a number of levels. First, the portfolio serves as a handy compilation of the other assessment devices; students are encouraged to consult their portfolio, examine their work, and assess for themselves how much progress they're making toward the goals they set at the beginning of the course. Because a primary goal in establishing a climate supportive of lifelong

learning is to focus the learner on his/her own self-assessment, the portfolios are excellent models in this regard.

Also contained in the portfolios are learner journal entries, daily logs in which learners explore an aspect of their learning journey in some detail. A strength of portfolios over standardized tests is that they tend to validate the notion that learning is more process than product. For example Janet Fulton, WPP Reading Instructor, devised a checklist derived from learner IEPs, worked with each learner individually to come up with a standard for satisfactory attainment of the specific com-

petencies on the checklist, then developed curriculum that kept learners focused on meeting their goals. Another strength of portfolios is that in the process of selecting the best work to go into their portfolio, adult learners demonstrate the critical thinking skills that carry over into their lives outside the workplace classroom. Finally, portfolios can become a kind of walking resume, a living document that reveals a pattern of personal and professional growth far more in keeping with the principles of lifelong learning than what learners derive from most quantitative data.

Jerry Smigelski — A tribute

We were saddened to hear of the recent passing of Jerry Smigelski, a longtime employee of Fletcher Paper Company and an active participant in workplace classes. Jerry was an avid outdoorsman and one of the classic scenes from the first workplace grant was a videotaped speech he gave describing a successful turkey hunt. Watching his eyes dance as he issued the call that brought the Tom within range just lit up everyone in the Mill Training Room; he couldn't have been more alive that day. And that's how we remember him.



Dr. Richard Lessard, WPP communications instructor, gives a presentation at the December 3 WPP Oversight Committee meeting in NRC 450. (WPP Photo)

Workplace Voices

Teaching and learning in the workplace

By R.D. Lessard
WPP Instructor

After over 20 years of teaching in public high schools and four years in college classrooms, what is it like to teach communications classes in the workplace? A euphemism that comes to mind is "challenging." No two classes are ever alike. Even when classes are offered at the same site they are different. Each group's workplace challenges are unique and students want to know different things, work on different problems and invent different ways to solve them. I like that. Throughout my career I have sought relevance and the WPP students create it for me. They are pragmatic people who want what will help them in their lives and in the workplace — now. But there is nothing wrong with all that. Students have a right to expect that what we are teaching them will be of use. We all want results from the time and money being invested, and amazingly enough, in four short weeks we often get them. As teachers we often try to find out what our students will need in the "real world." Naturally we like to think that everything they do in class is relevant, but the connections are usually much more clear to us than they are to the students. Relevancy is relative, and that isn't quite as trite as it sounds.

Many are first surprised, then elated when we tell them that the agenda for the course will be established by them. And they always do a better job of it than we could. Too many of them don't really expect their voices to be

heard or their ideas to be valued. It is far too rare for students to have a say in what happens to them in classes.

In the workplace classes we come face-to-face with the fact that it isn't what we teach that matters; it's what students learn, and there is certainly no one-to-one relationship between the two. We are confronted with the knowledge students take away from their previous educational experiences, and we try to fill the gaps in meaningful contexts. Our workplace students tolerate few "assignments" and they have little patience with academic formalities, none with theory. I'm impressed with these students. We can easily learn as much from them as they can from us. Students often relate relevant experiences and examples to a concept, or they let us know it doesn't apply. In WPP classes, there is little left to speculation; theory and application either go hand in hand or out the door.

Of course, the real challenge comes when I have to go back to the office after each class and scramble to prepare for their diverse needs. And what I prepare for one class may never be used again. Certainly there are some constants, but it seems that nearly every session is new and untested. I'm seldom sure that what we're doing in class will be successful or meaningful, until it's over. WPP classes provide a very sophisticated and demanding audience, and as such, they make us better educators.

WOLFE

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Doctorate came late for communications director

By FRANK PRZYKUCKI

By the time most people near age 50, they have labored most of their adult lives in a chosen career and are turning their thoughts to retirement. Rarely does anyone veer from course to undertake a demanding and risky challenge.

Dr. Richard Lessard, director of workplace communications with the Workplace Partnership Project, was somewhat typical in the traditional career mode. He had settled into a high school teaching vocation, chalking up 26 years in central and northeastern Michigan classrooms. His subjects included English, sociology, psychology and driver education and he had served as both a track and cross country coach.

The WPP staffer began his collegiate studies at Northwestern Michigan College, Traverse City. He took his first teaching assignment at Clio High School after earning a bachelor's degree from Central Michigan University in 1964, and then moved north after four years to begin a 20-year stint at Rogers City High School.

A master's degree in counseling from CMU, coming 23 years after the bachelor's, would likely have capped Lessard's academic pursuits had not a rare opportunity presented itself in 1990. At age 47, he learned of a fellowship program at the University of Michigan that could earn him his doctorate.



Dr. RICHARD LESSARD
Director of communications

"... it cost only a stamp, so I applied and lo and behold they accepted me," Lessard said. "The more I looked at it, the more I thought this is an opportunity that I just couldn't pass up. It offered free tuition plus a salary for teaching classes while I was down there."

Normally it takes 3 to 5 years to satisfy all the requirements for a doctorate, but Lessard "crashed" in 18 months. "I was older and didn't want to drag it out any longer than necessary," he said, "or I might not have finished."

Lessard admits the degree did not come easy. "I had no life at all. It was grueling, but after it was over you

gain confidence that you can handle a lot of things. I came out feeling real good that I was able to make it."

Lessard said the experience helps him to relate to people in the workplace who wonder if they really belong. "I wondered if I could handle it and had many of the insecurities that many of the workplace people have.

"We set up a program that was geared to our interest and what we thought we could do later," Lessard said. "Mine was quite non-traditional with a lot of work in motivation and literacy."

Lessard came to Alpena Community College on an adjunct basis for the spring term in 1992, his doctorate in Languages and Literature in hand, to teach classes both on the Alpena and Oscoda campuses. He also taught two summer classes in Oscoda that same year and then signed on as full-time faculty, teaching English composition for the 1992-93 school year, replacing Dr. Priscilla Homola who was on a Fulbright scholarship that year.

Lessard said he likes working with non-traditional students and understands some of their fears and insecurities because he has gone that route. "The ones I enjoy most are those who find they can do more than they really thought they could. Many have gotten the idea that they can't function in the classroom. It's really great to see those people convince themselves they do belong."

The goal of WPP classes: continued growth

'Give a man a fish and he will eat for a day; teach him to fish and he will eat for a lifetime.'

[Native American Proverb]

*** **

By R. D. LESSARD

When a colleague was recently asked to teach another WPP class, he expressed some strong reservations. He had taught a class before and was reluctant to become involved again. "Oh, I don't know," he said. "Those people's expectations are too high. It's very difficult to get them to where they think they should be in such a short time." I empathize with him. Both our partners and our students often anticipate some pretty lofty outcomes from our courses. Sometimes it feels as though all they want from our classes is *everything* they need — in eight sessions.

Much of this stems from the common perception of the teacher as a dispenser of knowledge and the students as open receptacles for information. But the traditional "reading assignment-lecture-testing" format is not the only way students learn, even though that is a widely accepted pedagogy. Most of us grew up with it and have come to expect that's what education is: acquiring facts and repeating them a week later on a test. Such an approach often works well with some students, in some settings; that's why it is still so widely used, and that's why such perceptions are so hard to change. However, in today's rapidly changing world, many students can be better served by learning how to learn, by a process-oriented approach.

Students and educators must liberate themselves from the notion that once a person has acquired a certain body of knowledge (and the "experts" can't agree about what that is) that he/she is set for life. The present world of work is moving much too fast for that. Job security today is much more connected to one's ability to upgrade and acquire new skills than it is to the seniority system or what a worker could do well yesterday. What students learn how to do in WPP classes is more important than any specific facts they acquire. In the course of learning how to do one thing, it is believed that students are growing familiar with the process which will enable them to do other things as well. This is what needs to happen if the concept of lifelong learning is going to become a reality.

What we hope to do in a very limited amount of time is provide the foundations, the fundamentals which will make it possible for students to continue to develop needed skills after the classes are over. We hope to help people learn how to fish. We want to provide the resources and the motivation which will enable them to get better as they practice what they have learned. Admittedly, students may not be great "fishers of men" when they finish our classes. But if they will be willing to apply what they have learned by integrating some of the processes into their lives and into their workplaces, if they will be willing to continue to develop some of the knowledge they have gained in a WPP class after it is over, they will become proficient fishermen/women one day.

College asks renewal of levy Feb. 1

On Feb. 1, voters in the Alpena Community College district will be asked to renew a one-mill, five-year tax levy for operating purposes.

The levy was first approved in 1989 as a single ballot issue, but a recent change in state law makes it necessary for voters to pass *two* propositions in order to renew that same one *mill* level of support.

The previous levy expired Dec. 31, and passage of the two propositions is crucial to keeping the college at its current level of service in the community, according to ACC President Don Newport.

"Over the past five years, Alpena Community College has taken great strides in assisting business and industry with employee training, and we continue the 40-year tradition of quality two-year and transfer pro-

grams which serve nearly 2,000 students at our Alpena campus each year," he said. "We have many friends out there, because we are truly this community's college."

Newport said it will be important for those friends of ACC to remember to vote Tuesday, Feb. 1, and he encouraged anyone with questions about the millage election to call the "millage hotline" at 356-0579.

Progress Report

Students served:	126
Unduplicated:	119

Current course offerings:

- Workplace Algebra Applications
- Workplace General Math
- Intro to Business Communications



Janet Fulton and Kendall Sumerix (seated foreground) are captured on the TV monitor. Lyle Beck (left) makes settings at the control panel as Dr. Richard Lessard watches



Lyle Beck (right) explains the controls to WPP Director Don MacMaster (left) and Kendall Sumerix



Rita Kirby (left monitor) speaks from CMU with Don MacMaster on the Alpena monitor.



Interactive video shrinks the miles

Without venturing any further south than Room 120 Van Lare Hall, the Workplace team met recently with Rita Kirby, a portfolio assessment specialist from the State Literacy Resource Center at CMU, who never left Mt. Pleasant. The technology that made this meeting possible is known as two-way interactive video. It has the potential to significantly expand the range of our workplace project, and in more ways than just geographically.

A two-way interactive videoconference begins when one site dials up another on the phone. After an access code is entered, clearing the transaction, operators on each end begin to adjust the sound and the cameras from a touch-sensitive control module at the front of the studio. It's like TV in a way, only better, because the medium responds to you, not the other way around.

The link-up with CMU went well. We shared insights and information and made plans for a follow-up call in March. A second two-way interactive videoconference, focusing on training strategies for adult educators, is set for later this month. There is a pioneering spirit here because we are all aware that we are just beginning to scratch the surface with this new technology. The photos accompanying this text are an attempt to bring that feeling into focus.

Lyle Beck (left photo) demonstrates camera angles available at the control panel to Janet Fulton and Richard Lessard. At right is a closeup view of the touch-sensitive control screen. (WPP Photos)



Workplace Voices

Computers play role in algebra applications classes

By Kendall Sumerix

Our latest workplace class was born during a project advisory team meeting over at Fletcher Paper Company. We were discussing possible math classes when a student said, "I want to learn how to use algebra to operate my computer."

Upon further discussion, we discovered that the computer software program EXCEL was going to be used at the company by a variety of people, including this student, and that they had a real need to learn algebra with spreadsheet applications. From this information, I went back and developed a totally new class designed specifically to the needs of Fletcher Paper. The class was called "Workplace Algebra Applications."

Computers can graph, chart, organize, compute and do about anything you want with numbers. We organized numbers derived from payroll into a table form, different types of graphs and charts from production and safety were discussed, but most of the class time was spent learning how to create and use algebraic formulas on a spreadsheet. The students did not want to learn the theoretical basis of algebra as much as they wanted to learn how to use algebra. Is this such an unreasonable request?

People in the workplace want to know how to use what you are teaching them. Too often we make demands they do not understand, and when they ask why, some teachers are confused or insulted. Adults are aware of what it is they want to learn and need to know. Our algebra class was a perfect example of this. They wanted to learn algebra in order to be able to use a computer spreadsheet. Since all of our assignments were completed on a computer, they learned as much about computers as they did about mathematics. They learned math in a way they could apply it.

The students made the class a success. By informing me of their needs, they set the class agenda. Since it was their agenda, they worked very hard to complete their assignments, which I designed with the intent of sharpening their math skills. I became a facilitator, interacting with them on an individual basis when asked to do so. This is workplace education.

Fletcher Paper Company employees are not an exception. Students have performed in a similar manner in

workplace classes I've taught. Classes at Besser and Baker have been just as successful. Come join us for a class; you might just like it. Knowledge replaces fear.

Following is feedback from students who took the math classes at Fletcher Paper.

I thoroughly enjoyed the class. I will be better able to not only show injury data but to graph it at the same time. Hopefully, this will make my monthly safety reports more attractive and professional, as well as easier to read and understand.

Ray Anderson

The hardest part of starting a new class is getting over the fear that "I might fail at this." This class in particular, computers and math sounded very challenging! It was, but it was also very rewarding! Kendall does an excellent job early on, showing you that you can do it! The skills I learned will help me create meaningful documents I can use daily at work. Give it a try, you'll be glad you did.

Michael A. Bruski

My goal in taking the WPP computer/math class was to re-visit and restore some of my knowledge of algebra, and also to explore the avenues of new software.

I am very satisfied with the class content and the instructor. I am extremely satisfied and thankful for the use of the laptop computers for this class.

I believe with the time allotted for the class and the efficiency of the instructor and use of equipment, my goals were exceeded.

Thank you for this invaluable opportunity.

Carol J. Jasso

The education I received from the workplace algebra class at Fletcher Paper is used every day. I formulate spreadsheets and charts to help me track paper tonnage shipped and billed. Along with this, shrinkage reports are assembled. This all makes my job more efficient.

Carol Kolnowski

I have really enjoyed this class and I am looking forward to using it with graphs, formulas, etc. This class has given me ideas to help make my work look nicer, easier and more accurate.

Debora J. Wigle

WORLD

ALPENA
COMMUNITY COLLEGE

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February 1994

Addressing society's needs with Literacy

By JANET FULTON

My morning began at 3:30 a.m. getting ready for my flight from Alpena to Washington D.C. by way of Detroit. I was scheduled to attend the International Reading Association's Third North American Conference on Adult and Adolescent Literacy. After two plane delays and a relatively smooth flight, I found myself completing a descent within sight of the Pentagon, Arlington National Cemetery, Lincoln and Washington monuments. It was breathtaking.

Once on the ground I was off and running. "Addressing Society's Needs with Literacy" was the title of the conference I attended. With conferees from five provinces, 34 states, and six countries, I worked to broaden and develop an infrastructure across North America that will ensure the fostering of lifelong learning.

The conference was much smaller than I had expected. It did, however, combine all the significant literacy providers in the country. It was my pleasure to meet many of our WPP national contacts as every type of literacy effort had been included in a variety of conference functions. Computer labs, featured speakers, roundtable discussions, symposiums, sessions, and workshops broadened our vision for literacy as we were challenged to assist adults and adolescents in meeting their hopes, dreams, and their aspirations.

Our country's literacy needs are expanding. Conference strands included: staff development, collaboration, support systems, instructional strategies, student assessment & evaluation, workplace literacy, family literacy, standards/professionalism, technology, learning disabilities, program evaluation and research issues. The largest sessions appeared to be those connected with literacy policy and planning.

The keynote address, "Power And The Right To Know," by Walter Anderson, Editor of *Parade Magazine*, and author of *Read With Me*, gave us all the clear focus we needed.

After recounting a part of his very personal and painful experiences learning to read in an abusive environment, he challenged us to view destiny not as something that happens to us but as a choice we make. He made the choice to read even though he knew, if caught, he would be physically beaten. And with that stunning verbal picture throbbing in our minds he delivered the poignant statement: "I learned to read my way out of poverty long before I worked my way out of poverty."

Learning is a gift to be enjoyed all our lives through. Literacy is the tool to make it come alive.



Mike Bruski, training coordinator at Fletcher Paper Company, issues a greeting to Dr. Richard Lessard, WPP communications instructor, who recently began a class in the mill training room. Thanks to Bruski, Fletcher Paper and the WPP continue to work well together. (WPP Photo by Frank Przykucki)

WPP research published nationally

By DON MacMASTER

The WPP team has been busy throughout this project documenting its research and sending this material out to ERIC for publication. Janet Fulton has spent many hours on the phone researching instructional software, looking specifically at how other National Workplace Literacy projects have either adapted existing computer software programs or developed their own to address the learning needs identified by the people they serve. Dr. Richard Lessard has completed an extensive study on integrating learner-driven and organization-driven agendas in the workplace classroom. Kendall Sumerix has work in progress on how to develop math curriculum in various workplace settings. Each of these reports will serve as guides from the field, so that the ground we've covered may be examined by other providers looking for fruitful approaches.

ERIC — short for Educational Resource Information Clearinghouse — is a national databank of educational research available through university libraries. The editors are mainly interested in

innovative material that adds to their collection. Workplace research, because the field is new and expanding rapidly, is a natural fit.

Recently, two submissions by the WPP Project Director were accepted

for publication by ERIC. The first was about the role of the teacher in the workplace classroom. The second focused on methods of evaluation.

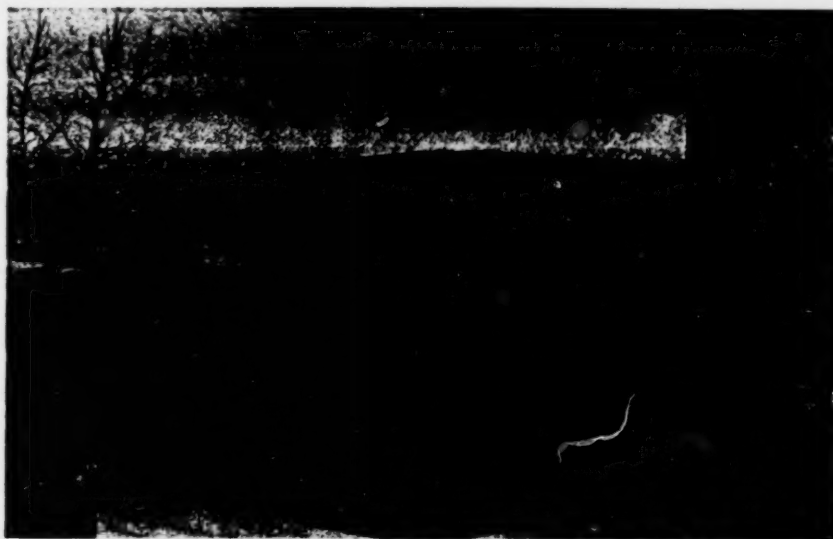
An excerpt from the first follows:

Communication and Collaboration: The Role of the Teacher in the Workplace Classroom

As an administrator of a national workplace research and development project, I'm always on the lookout for good instructors. What I look for is maturity, commitment, a willingness to listen, a pragmatic and persistent approach to developing curriculum, high standards, respect for the complexity of the lives of adult learners in the workplace, sensitivity to politics and privacy, and people who are not inclined as a first response to say, "That hasn't been done before, it won't work."

Workplace instructors are on the frontline in a foreign environment, often without much precedent to guide them or any bureaucracy to protect their hard-earned reputation as quality educators. The bulk of responsibility for achieving success falls upon their ability to learn quickly and translate the high-minded prose of policy-makers and administrators into lessons that speak to adults where they live and work.

Workplace instructors are the true heroes in this process. They figure out a way to make it work.



The Besser Company pump house on Johnson Street has played a useful role over the years besides housing water pumps for fire protection and cooling systems across the street. A cozy room at ground level has been used for decades as a quiet meeting place away from the mill. There are no telephones or rest room facilities in the building to cause interruptions. Over the past three years approximately 225 WPP students from Besser and Baker Enterprises have attended classes in the facility. (WPP Photo by Frank Przyucki)

Progress Report

Students served: 157
Unduplicated: 135

Current course offerings:

- General Math Improvement
- Workplace Algebra Applications
- Critical Thinking and Time Management
- Problem Solving

Report production gains at Tawas Plating

Some interesting follow-up data has emerged from Tawas Plating, where WPP Communications Instructor Dr. Richard Lessard taught communications and problem-solving from June through September. According to company president, Kevin Jungquist, pro-

duction is up almost five percent over last year and he's seen a significant decrease in rejection rates in the company's nickel and zinc plating operations, especially over the past four months.

"December was the best quality control month we've ever had in the nickel room," he said.

Tawas Plating employs about 45 workers and has been a mainstay of the Tawas economy for many years. Thousands of parts, mainly for the automotive industry, are plated or powder coated at the plant each day. Plating hardens a part, so it resists wear and corrosion, and powder coating gives a smooth, consistent finish.

There are a number of reasons why a part may not plate properly. Some are highly technical, such as faulty acidizing procedures. Other times, something simple like moisture or dirt on the part will cause the plating to blister and the part to be rejected. Whatever the reason, rejection rate is a key indicator of overall company performance and productivity because, as Jungquist pointed out, "You only get paid for doing the part once."

October 1993 vs. October 1992

- rejects down 20 percent in the nickel room.
- rejects down 18 percent in the zinc room.

November 1993 vs. November 1992

- rejects down 15 percent in the nickel room.
- rejects down 20 percent in the zinc room.

December 1993 vs. December 1992

- rejects down 65 percent in the nickel room.
- rejects down 26 percent in the zinc room.

January 1994 vs. January 1993

- rejects down 20 percent in the nickel room.
- rejects down 32 percent in the zinc room.

Overall: 1993 vs. 1992

- rejects down 31 percent in the nickel room.
- rejects down 20 percent in the zinc room.

Electronic bulletin board proposed

Janet Fulton, WPP Reading improvement instructor, recently came up with an excellent idea. She thought it would be a good application of distance learning technology to develop an electronic bulletin board accessible to all project participants through laptops equipped with modems. That way adult learners from remote sites could talk to each other and their instructors, building writing and computer skills while opening the kind of dialogue that sparks self-directed learning.

The electronic bulletin board would work like this: Input from the laptops would be dialed in through a modem to a computer with memory manager software in the workplace partnership team room, where the bulletin board would be maintained. The receiver could retrieve the message by dialing

into the bulletin board through another laptop with a modem, and then either respond, store the message on the laptop hard drive, or print out a hard copy.

The idea has legs. Down the road, after the electronic bulletin board is up and running, we could link through Internet with other projects across the country, sharing thoughts that have the immediacy and pertinence that even the best research writing often lacks. It's exciting to think of the implications of this linkage on quality of instruction and marketing and improving the project. But most significantly perhaps, if past practice holds form, workplace students will probably come up with the most meaningful and innovative applications of the technology. That's the beauty of a good idea.

Thanks, Janet.

Voters approve ACC millage package, 2-1

Voters in the Alpena Community College district, in a special election Feb. 1, overwhelmingly approved a one-mill, five-year tax levy for operating purposes.

New state law made it necessary for voters to okay two propositions to renew the same one mill level of support first approved in 1989.

The previous levy expired Dec. 31, and passage of the two propositions was crucial to keeping the college at its current level of service in the community, according to ACC President Don Newport.

The college offers two-year and transfer programs which serve nearly 2,000 students in Alpena.

Workplace Voices

Project director learning fine art of grantwriting

By Don MacMaster

T rue to our philosophy of lifelong learning, I've been schooling myself lately in the fine art of grantwriting. Though we are only slightly more than halfway through the timeline of our current project, the time has come to submit our proposal for the next funding cycle, and it is carpal tunnel season for all involved. We are working every available keyboard with all our might, trying to hammer out a winning proposal that will keep this project going for the next three years.

There is a nebulous aspect to the grant trade that induces real paranoia, especially in the novice. Administrations change, rules change, the regulatory language is impenetrable and full of fine print. I heard one lecturer prominent in the field of workplace literacy refer to the whole process of writing for federal grant funding as "rubbing the lamp of the grant genie." There is that feeling: funding, if it comes, falling out of the sky like a check in the mail from one of the Publisher's Clearinghouse sweepstakes contests. Not something solid you want to count on.

The temptation is to conclude that because you never know if you're going to be funded, the whole funding process is arbitrary, a total crapshoot. That's not true, of course, but objective analysis is not the fuel that drives a grantwriter as deadline approaches. This point was driven home with unnerving humor recently when I happened to be talking on the phone with a fellow project director who had been a grant reader for the last cycle of federal workplace literacy grants. (She was not a project director at the time she read the grants.) She said, warming to her story, that they read so many grants that weekend that after a certain point they decided to just throw them all in the

pool — the proposals that floated were funded, those that sunk were sunk.

I'm pretty sure she was joking.

In fact, the grant readers are experts in the field. They know what they're looking for and they base their scoring on whether or not they find it. We have several factors working in our favor: a solid track record, good partners, good instructors, innovative applications in distance learning, a field-tested evaluation plan, and plenty of dissemination credits. The Department of Education in Washington plans on funding about 50 of these projects nationwide. They figure on receiving about 300 applications. So as you can see, continued funding for the Alpena Workplace Partnership is no done deal.

Fortunately for me (and our project), I have a mentor on hand - Carol Shafto, from NEMSCA, who wrote the grant that brought this project to life almost four years ago. More than ninety percent of the grants Carol writes get funded, a good average in any league, and she has graciously directed me toward the right questions to ask, so she can then answer them for me. She also is reading vast sections of the proposal and is giving me pointers on what to leave in and what to cut. Invaluable stuff.

One day last week, after a long morning trying to wrap my arms around the Goals and Objectives section, I broke at noon for an hour to escape the confines of entangling phraseology such as "facilitate," "enable," "replicate," "exemplary," "upgrade" and "quantifiable." Returning to the office, I spotted a blinking light on my answering machine. It was Carol, with some professional advice: "Real grantwriters don't go to lunch."

I had to laugh. Then I went back to work.

THE WORKPLACE

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Fletcher employee gives WPP classes high marks

By FRANK PRZYKUCKI

Are Workplace Partnership classes accomplishing what they are designed to do?

Desiree Lipski, receptionist at Fletcher Paper Co., holds high regard for instructional sessions she has attended in the workplace and sees the benefits both in herself and others. She has completed one of the programs and is currently enrolled in another soon to be concluded.



DESIREE LIPSKI
Receptionist at Fletcher Paper

"The (Workplace Partnership) classes help me greatly in dealing with customers on a daily basis. I understand some of their frustrations and am better prepared to handle them," she said "I'm learning to improve my communications with others and how to send the right message."

The Hubbard Lake resident is also a part-time student at Alpena Community College as she continues her pursuit of a master's degree in marketing and communications through Lake Superior State University. Her experience in the two kinds of learning environments puts her in a good position to draw a comparison.

A graduate of Alcona High School, Lipski experiences the immediate application of her new-found skills by being a full-time employee in the business world while retaining student status. She says the training helps her on a personal and professional level.

Lipski said classes at Fletcher Paper are less structured than on the college campus and are geared more to the needs of company. She enjoys the relaxed atmosphere and the sharing of ideas with fellow workers.

"The teachers find out how they can help us and shape the courses to meet those needs," Lipski said.

Aside from the course content, Lipski said attending classes with

other workers in the plant offers other benefits. "We learn more about each other's jobs and better understand what everyone is doing," she said.

Lipski is completing the second of two communications classes presented by Workplace Partnership instructors on company premises. The latter, being taught by Dr. Richard Lessard, will wrap up in April.

Lipski began employment at Fletcher paper in 1990 as a part time sales representative. She took on full-time status in 1992 and was assigned to her current duties. As a receptionist, Lipski works with the public daily both on a personal basis at the company's Alpena home office and on the telephone.

As an added duty, Lipski edits the company's daily in-house newsletter *All in a Day's Work*. The publication details departmental output from the previous day, along with other articles of employee interest and tidbits about births and meeting notices.

Lipski says she enjoys working at Fletcher Paper, and is also thankful for the opportunity to continue her education.

Lipski and her husband, Al, hope to maintain their residency in northern Michigan. He is currently employed by a plumbing contractor and plans to expand his own gunshop business into a full time operation.

Grant proposal lists four key components

By DON MacMASTER

Granted, every analogy has its limitations, but I thought I was really onto something last week when I told my wife that writing one of these federal grant proposals must be like giving birth to a child. She eyed me with bemused skepticism, then glanced back at our two children strapped into their car seats. "I think that's pushing it just a tad," she said.

Overstatement does not pay off in grantwriting, either.

Boiled down, a grant proposal is a contract between the grantee — that's ACC — and the funding agency, in this case the Department of Education in Washington. The details of this agreement are contained in a collection of commitments called the grant objectives, which is what the grantee says will be accomplished by the project, and the budget, which is a best estimate of how much it will cost. If the grantwriter promises more than the project can deliver — gilding the lily to win funding — chances are it will show up as an imbalance between the objectives



Workplace Partnership Project Director Don MacMaster is heaped with copies of the grant proposal he wrote by WPP Secretary Ann Schultz (right) and workstudy office assistant Connie Kaczorowski.

(WPP photo)

and the budget, and the proposal will be vetoed by the experts who read the grants. The best bet is to play it down the middle; if the numbers are reasonable and the objectives support the vision Washington has for its national workplace literacy program, the proposal will be judged on merits the project can actually deliver in the field.

A key factor in the upcoming three-year cycle, according to grants officers in Washington, will be innovations in the basic design of the project. In other words, simply doing the same things we've done before would not be highly regarded. Distance learning and serving small business, on the other hand, carry disproportionate weight. So we thought hard about what we could do to expand the project while maintaining what's worked well for the partnership.

When the smoke cleared, these four components stood out.

(1) Serving local family farmers through a partnership with the Alpena County Farm Bureau.

(2) Establishing an electronic bulletin board accessible to all work-

place students through laptop computers equipped with modems.

(3) Teaching workplace classes to re-users of Wurtsmith Air Force Base using two-way interactive video.

(4) Partnering with Local 459, Office and Professional Employees International Union, the union representation of paraprofessionals working in adult foster care homes run by Northeastern Michigan Community Mental Health Services.

We should know by late summer if the project will be refunded. Our target is to serve 500 adults over three years. We're asking for an average of \$275,000 per year from Washington.

The Work Place

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FRANK PRZYKUCKI NEWSLETTER

A newsletter published monthly, circulated to current and former Workplace Partnership Project participants, members of the faculty and staff of Alpena Community College, and other interested persons.

Progress Report

Students served: 172
Unduplicated: 140

Current course offerings:

- General Math Improvement
- Workplace Algebra Applications
- Critical Thinking and Time Management
- Problem Solving
- Level 2 Mathematics



Baker Enterprises employees meet in a math session with instructor Kendall Sumerix (standing right). Classes were held in the Besser Company pump house.

Learning the angles, trig style

By KENDALL SUMERIX

I observed an extraordinary achievement recently. For the first time in my life everyone in a class of mine learned right angle trig the first time around. We must be doing something right. Spirits are running high in Math class at Baker Enterprises.

I can't believe my eyes and ears. Students who weren't sure they were ready for right angle trig now know they are. The spirit of accomplishment is measured best by the expressions on their faces as they are able to use and understand applications of trigonometry — some of them for the first time. Sine, cosine, and tangent are now common terms being used in class in addition to opposite, adjacent, and hypotenuse. They seem to be able to make their calculator "talk" to them and understand what it is doing.

These students are determined men who have been provided with tools which they can use — real tools to do their jobs. This is a feeling of accomplishment for me as a teacher and for them as students to have obtained this kind of success.

People want to understand, know, and use math such as trig. Adults really care about their work and want to do their best. These people in this class exemplify this idea.



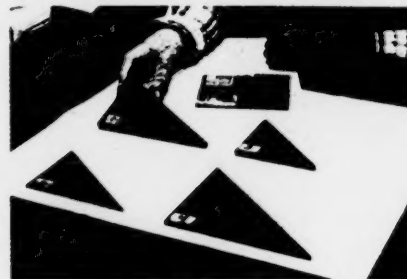
Closeup of an inclined plane used in teaching math students about triangles.



Triangles, calculators and computers (background) serve as trigonometry teaching tools.



Sumerix transfers readings from an inclined plane to the blackboard.



Metal triangles of varying thicknesses were donated by Baker students.

Workplace Voices

Innovative changes paying off at Tawas Plating

By Dr. Richard Lessard

Three months after we completed our last class at Tawas Plating we returned to examine what, if any, long-term impact the WPP classes might have had on productivity at this facility. The results were encouraging. Kevin Jungquist, company president, felt that the most significant indicator was in the area of quality control. "Everything feeds off that," he said. "If we can keep the reject rate down, we are in good shape. If things are going the way they should, then we don't have to do parts over." His comparison figures matching the rejection rates in the last four months with those of the previous year, show that rejection rates were down 31 percent in the nickel room and down 20 percent on the zinc line. "December had the lowest rejection rate we have ever had here," he said. This was accomplished when the company was also filling 5 percent more orders than they were in the previous year.

When asked to what he attributed the improvement, he stated, "Communication, cooperation, and education. People are taking time to explain why, and people are asking why, maybe because they are getting better answers. We are all much more proactive, trying to get everyone involved, and the men on the floor are proving to be good problem-solvers. They know their own jobs better than anyone else does."

Clearly the people at Tawas Plating were ready for a different menu. In the first sessions of each class, the men frequently spent a lot of time venting their anger and hostility. They wanted to say that things were out of their hands, that it was all up to management; but they didn't stay stuck in that posture very long. Once they cleared the air, they settled down to attacking problems rather than people. They began to look at the sources of the problems, not just the results, and then sought ways to neutralize them. Projects they worked on and completed in classes included:

- Class #1: Employee Progress Reports
- Class #2: Communications Flow Chart
- Class #3: Re-instituted Quality Circles
- Class #4: Attendance Incentives & New Employee Training System
- Class #5: New Employee Hiring & Evaluation Program

Each class was able to produce something that would enable ongoing positive changes to take place in their work environment.

In reflecting upon what these men were able to accomplish, it is important to acknowledge the honesty with

which they approached their classes. Had they been less open with us and with each other, we could have floundered throughout the entire project, trying to find out just what they thought should be changed. But they came in, stated what was on their minds, then got to the issues that needed to be addressed. They assumed some ownership of the classes, and later, complete ownership of their class projects. Granted, we generally thrust some of that responsibility on them, but they were the ones who made the connections, who put these concepts into practice; now they are the ones making the effort to keep things moving in a positive direction.

Another thing that helped them was the courage they showed in assuming responsibility for improving their workplace, knowing that they could possibly fail. They weren't sure what changes should be made, nor were they sure about where to begin, but most were unsatisfied with the work environment and they thought it could be made better.

And certainly a key component of this success story is the willingness on the part of the president to take the chance of empowering the men on the lines, of giving them a say in what went on in the workplace. He had the nerve to break some new ground here and try to sell both management and labor on an idea he couldn't even be confident would work. He put class lists together in a deliberative manner, forcing people who needed to work together to sit down and face one another. Then he had the mettle to validate the suggestions of the various classes by putting them in place and giving them an opportunity to work — or fail. Once the men saw that they were being heard and that their ideas were valued and implemented, things began to turn around. As they saw their projects come to fruition, their belief in their abilities to contribute, and their emotional investment in the classes (and the company) grew. I see the commitment of the president and his follow-up on the ideas the men generated as a significant factor in the improvements at this workplace.

We are pleased with the changes that have taken place at Tawas Plating, but we must also give credit where credit is due: the men who had the courage, the wisdom and the ambition to make this facility better for everyone. Their story speaks of an intangible that is important in our WPP classes, a willingness on the part of management and labor to speak straight and risk change.

THE WORKPLACE

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April-May 1994

Alpena libraries log on with Internet

By JANET FULTON

An on-ramp to the telecommunication highway was just established and launched in the first public library in Michigan. The project was introduced and celebrated at the Alpena County Library on Monday, May 18th in honor of National Library Week. During the festivities a congratulatory message, acknowledging this important event, was received via Internet from Vice President Al Gore.



Alpena County Librarian Roger Mendel and WPP staffer Janet Fulton (standing left) watch as Northland Library Director Becky Cawley connects with Internet.

Northland Library Director Becky Cawley described the Internet connection. Internet is a global network of cooperating but independent computer networks in which information and expensive resources are shared from computer to computer using high speed telecommunications. People give and share information over these networks. In this activity new concepts of time, distance, collaboration, and access to information are

forged. Government, industries, academic and research sectors are all coming together with the help of computer — mediated communication. The Workplace Partnership Project is getting ready to participate and hopes to contribute some innovation in the field of workplace literacy.

Northland Library Cooperative in association with the Alpena County Library and the members of the

Alpena Telecommunications Consortium were responsible for the installation of three public access connections to the Internet in the nine county Northland headquarters in Alpena, at Otsego County Library, and at North Central Michigan College Library in Petoskey. The project, funded through a grant from the Library of Michigan, will make it possible for many people in northern Michigan to connect to Internet's world of information with just a local phone call.

Several dignitaries were present for the reception including: Deputy State Librarian Jeff Johnson, Senator John Pridnia, and Representative Beverly Bodem. Current local Internet users were also identified and available to discuss the system with anyone who had questions. The "buzz" of both experienced and inexperienced Internet users networking was the sound I was a part of and heard continuing as I walked away from the well attended celebration. We are both excited and privileged to see the telecommunications highway established in the northern Michigan region. We offer our congratulations and thanks to Northland Library Cooperative, the Alpena County Library, and the Alpena Telecommunications Consortium for hours spent in creating this important information link with the world!

WPP students disprove doomsayers

By DR. RICHARD LESSARD

In our workplace classes we frequently speak of the need for lifelong learning in today's world of work; I feel I should practice it too. So, I have made an effort to keep up with the latest literature on workplace research — which led me to Judith Bardwick's book, *Danger in the Comfort Zone*. In the introduction she states:

American productivity is sagging ... for many people the work ethic no longer shines ... too many Americans no longer work as hard or as well as they should.

The book's major premise seems to be: *"American business is in big trouble and the cause of that is an 'entitlement' philosophy instilled in the American worker; they feel the company owes them a whole lot and they owe the company nothing."* Well, we hear such nonsense all the time. Some say it's the fault of the younger generation, that they don't know what work is, but that's a lie. The majority of the students in our WPP classes are younger workers, and believe me, they know how to work.

Now I suppose there are those who would delight in her diatribes on the American work ethic. Bashing the American worker has been in fashion for quite some time now and it sells books and even helps elect politicians. But I find her words disturbing, because, frankly, she is wrong. I don't know where she gath-

ered her research, but my experience in the workplace has convinced me that the American work ethic is alive and well, at least in Northeastern Michigan. I've seen the pride the men at Tawas Plating take in a good quality control rating from a customer, how they put their minds to making the company more productive and their work environment more positive. I've seen the men at Baker share their expertise as they devised a system for making site visits more efficient; I've seen how they roll up their sleeves and work together on a new project, as well as the sparks of enthusiasm in their eyes as they tell others what their role in the project will be. I've seen the workers at Fletcher and Besser make direct applications of what we were doing in classes to their specific jobs in an effort to do them better. It has become clear to me that these workers enjoy a challenge and dedicate themselves to getting things done right. As a matter of fact, the one thing that has impressed me most about the WPP classes I have been involved with is the pride people take in the jobs they do.

I've watched progressive supervisors ask the men for ideas about their work areas, and I have yet to hear a trite or a selfish suggestion. I've seen employers experiment with the new Total Quality Management concept in their facilities, and I have yet to see one revert back to

the old top-down style. Management is beginning to trust labor because they are finding that labor is trustworthy. And the trust of the one feeds off the other. Sure, people grumble and fuss over things in the workplace, but isn't that the nature of things? Who ever worked in a perfect work environment? Looking at problems is only counterproductive if people fail to look for the solutions to them. Besides, most of the fussing is about inefficiency or obstacles in the way of peak performance. Then, when the fussing and fuming are over, they tackle the task of improving efficiency and removing the obstacles. The fact of the matter is, they are keenly aware of what they are doing a good job and when they aren't — and they want/expect to do a good job. They don't want to look bad to others, or more importantly, to themselves, and they don't want to let people down.

Okay, so maybe we're just lucky in our WPP classes. Maybe we are simply getting the "cream of the crop," but I think the people we get in our classes are pretty representative, and I feel good about the American worker. Sure, all I know is what I've seen in the businesses where we have worked, but based on that, I'd suggest Ms. Bardwick and her fellow doomsayers save their words and their ink for those who don't know any better.

Paper accepted by national clearinghouse

Dr. Richard Lessard recently received notification from the Education Resource Information Clearinghouse (ERIC) that his research document on integrating learner-driven and organization-driven agendas in the workplace communications classroom has been accepted for publication and is available through the ERIC database. Dr. Lessard's study is an in-depth look at the effect of allowing workers to set the agenda in the classroom. His data includes test scores, worker attitude surveys, extensive journal recordings, and follow-up investigation into changes in worker attitudes, management-labor relations, and overall

company productivity.

Much of the research in the field of workplace literacy now indicates that giving workers decision-making power over the curriculum contributes significantly to learning gains while promoting an attitude of lifelong learning. Dr. Lessard's research confirms this hypothesis, but concludes that a learner-driven agenda is most effective in workplaces committed to worker empowerment. Companies structured according to the more traditional top-down management style may be better suited to more traditional instructional styles, such as lecture and drill and practice.

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FRANK PRZYKUCKI	NEWSLETTER

A newsletter published monthly, directed to current and former Workplace Partnership Project participants, members of the faculty and staff of Alpena Community College, and other interested persons.

Baker employee makes math prowess pay

By FRANK PRZYKUCKI

Skilled employees who take pride in their work and achievements will naturally improve and become more valuable to their employer over time. Fueling that enthusiasm with employer-supported training programs can lead to accelerated advancement in the workplace.

Baker Enterprises and the Workplace Partnership Project have been working together since 1992 to offer tailored classes for employees, and the fruits of that effort have already been demonstrated.

Tim Smith, a 10-year veteran with the Baker firm, is one of approximately 40 shop workers who have taken WPP math classes in the past. Both he and the company recognize benefits from time spent in the classroom.

When an opportunity arose recently to address a customer problem in the field, Baker executives didn't hesitate to pick Smith for the assignment. He was sent to Arkansas to assess and take care of the situation.

"That's not something we'd normally ask anyone on the shop floor to do," said Baker Operations Manager Jim Krueger. "Part of the reason is just the improvement and progress that Tim has displayed."

Is Smith's progress solely related to WPP participation?

"Probably not," Krueger said. "But I'm sure a great deal is related to that



Tim Smith of Baker Enterprises works on a dust collector unit bound for the Boeing Aircraft plant in Wichita, Kan. (WPP Photo) (the WPP)."

Krueger said Smith has demonstrated that he can do his own problem solving, partly because of the WPP math classes offered to Baker employees. Smith had taken two classes presented by WPP Math Instructor Kendall Sumerix.

In early April, Smith was sent to Fayetteville, Ark. to visit the Danahar Corp. firm, which manufactures Craftsman products for Sears. The company needed help with a dust collector unit built by Baker Enterprises.

"He (Smith) was able to go out there and take care of the situation, sight

unseen, with nothing more than a few phone conversations in advance," Krueger said. The job took just over a day.

A 1974 graduate of Alpena High School, Smith came to Baker Enterprises as a welder and sheetmetal worker in 1984 after a combined 11 years of service at Eagle Engineering and Panel Processing. He now holds the position of sheetmetal worker-welder "A" class.

Smith, who resides in Lachine with his wife and two children, said he had studied only basic math in school prior to taking the WPP classes. "They've (the WPP classes) made my job easier," Smith said.

"From the company standpoint, it translates into dollars," Krueger said. "Anytime that technicians on the floor can speed the process of bringing a project from start to finish it directly amounts to a savings for the company. What we are seeing on the shop floor now is that guys who needed assistance before are solving problems on their own."

Krueger said Sumerix's classes have been geared to what employees do on the shop floor. "Kendall does such a good job because his presentations were all applicable to what we do on a day-to-day basis, whether it be with cones, circles, triangles, boxes, squares or whatever."

Krueger credits pre-class interviews by WPP staffers for the success of the workshops. "They've done some homework by coming in and asking 'what is it you need?' From that, the classes were generated," he added.

Pushing increased usage of technological tools

Technology: New Tools for Adult Literacy, a satellite videoconference sponsored by the National Center on Adult Literacy and the U.S. Department of Education, aired recently in NRC 450. The basis of the conference stemmed from a congressional report recently released by the Office of Technology Assessment which concluded that no more than 15 percent of adult literacy programs nationwide use computers regularly for instruction.

Augusta Kapner, Assistant Secretary, U.S. Department of Education, stressed

the importance of staff development in tapping this potential; literacy providers, she pointed out, need to understand and feel confident using technology before they can begin to transmit that knowledge to their students.

In the workplace, the learning needs of the people we serve are constantly changing. Adapting technology to meet those needs is one of the most challenging, creative aspects of our work. Videoconferences help us to meet this challenge.

Progress Report

Students served:	185
Unduplicated:	152

Current course offerings:

- General Math Improvement
- Workplace Algebra Applications
- Level 2 Mathematics

Workplace Voices

Alpena, Miami projects share common ground

By Don MacMaster

As one of 54 projects funded nationwide and the only one in Michigan, we often wonder what other projects around the country are doing. Ideally, projects should cooperate and share information, but realistically the competitive nature of the funding process keeps us at a distance from most of our colleagues. Recently, however, we discovered that we share common ground with a project a long way from Alpena — Project STEP from Miami-Dade Community College in the heart of south Florida.

Project STEP (Skills and Training for Employee Progress) provides literacy services to frontline caregivers working with developmentally disabled adults. Noted nationwide for designing curriculum around the critical thinking skills caregivers use on the job, Project STEP may help us in the next grant cycle when we partner with the men and women who work as caregivers in adult foster homes run by Northeast Michigan Community Mental Health Services. Last week, to learn more about the workers they serve and how they serve them, I flew down to Miami to visit with Gina Guaraldi, director of Project STEP.

As we drove south out of Miami toward Homestead where Project STEP holds classes, Gina pointed out the residue of Hurricane Andrew, which hit here with devastating impact on August 24, 1992. As I gazed out at the sheared and jagged trees on the horizon, she told me that when the storm hit their trailer, the trailer and everything in it just disappeared; the only trace of their former classroom after the storm passed was a single dictionary lying flat on the ground. "It was just surreal," she said.

The storm still lingers in the minds of the people here, she said. Inhabitants of this flat strip of farmland tucked between the Everglades and the oceanfront still struggle with a kind of bruised lethargy, as if recovering from a massive concussion. While structural rebuilding is nearly complete — there is a new roof on almost every house, for example — many middle class working people simply packed up and left after digging out from Andrew. As a result, there has been an extremely high turnover in caregivers at the Sunrise Community, the

large non-for-profit agency where Project STEP provides services. Project STEP is now being challenged to meet the learning needs of new caregivers, mostly women and minorities, many with little experience in a health care setting, underdeveloped job skills, and low self-esteem.

"A lot of these people have very hard lives," Gina said. "So when you see a student begin to believe in her own potential and you can see she's going to make it, that's very exciting. That's what I love about this job. The reward is seeing someone make something of their lives beyond what everyone around them imagined. And that happens. I've had students come into my office who've graduated from Project STEP and gone on to begin their Associate's Degree."

We arrived at the Sunrise Community around 11 a.m. It was hot and muggy outside, without much breeze. In an air-conditioned conference room off the main corridor, instructor Laurie Shapero was targeting reading and critical thinking skills in a lesson built around the principles of refrigeration and food storage. One woman in particular focused in and pushed ahead, thriving on the non-traditional interactive approach used in the classroom.

"You wait," Gina told me later. "She's going to amaze everybody someday. She's going to accomplish things no one ever thought were possible. I just hope that when she does she'll come into my office and sit down and tell me all about it."

Based on what I observed, Project STEP is a small but significant part of a huge rebuilding effort in the wake of one of the most destructive storms to hit the United States in this century. Their experience in providing quality literacy services to adult foster caregivers is evident as is the care they demonstrate for the fate of their students. Rebuilding here in Homestead is more a matter of firing hearts and minds than bricks and mortar, and Project STEP has taken the lead in this healing process. If we both get refunded, it would be a pleasure to work with them to better serve the learning needs of adult foster caregivers in our own community.

THE W O R K P L A C E

ALPENA
COMMUNITY COLLEGE

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June 1994

WPP math students find classes practical

By FRANK PRZYKUCKI

If the key to education is a desire to learn, then the Workplace Partnership Project math students being taught by Rob Abram are on the right track.

Abram, who has been teaching in the Alpena Public Schools since graduating from the University of Michigan in 1990, has conducted five math classes for the WPP and is also teaching part-time for Alpena Community College. Because of his principle role as an instructor at Thunder Bay Junior High School (TBJHS), he has had the opportunity to compare students taking classes in two different environments.

Junior high students, he observes, range widely in motivational levels while the

prevailing attitude in WPP classes is a desire to learn.

"Students here (at TBJHS) are forced to be here. Some of them want to learn and some of them don't," Abram said. "People in my other classes are there because they want to be. They want to learn something and they're much more motivated."

Abram said WPP students have a reason to learn what he is teaching. "I'm teaching them math that they can use on the job. I ask them at the beginning of the class if what I am going to be teaching is appropriate ...

"The difference is, they (WPP students) know what the applications are going to be. You never hear 'when am I

going to be able to use this?' That's what you hear in junior high all the time. We try to look for as many applications as possible."

The Alcona County native says that working with WPP students gives him material he can bring back to his junior high classes.

"That's one of the reasons I like teaching there (in the workplace). A lot of times I don't know the applications of some of the things I teach until somebody tells me they have to weld a piece of metal around a half circle and they have to know how long that piece of metal has to be. To me, that's a circumference problem, and to them it is a real-life problem."

Abram said he has taught basically the same material in all his WPP classes. The curriculum consists of fractions (both on paper and using a calculator); geometry problems that solve area; volume; circumference and perimeter; right-triangle trigonometry; the Pythagorean Theorem and conversions.

Abram pointed out that WPP students are not under any pressure to perform up to a specific level. "You take the pressure off and you put the emphasis on getting something done on the job. They don't have to worry about getting a grade. If they improve, they pass. Almost all have improved."

Abram is the son of Bob and Marge Abram of Hubbard Lake. He graduated from Alcona High School before earning his bachelor's degree at U of M. He and his wife, the former Nancy Genschaw of Alpena, make their home at 114 W. Campbell.



Rob Abram, WPP math instructor, illustrates some of the formulas he has his students work with in his classes.
(WPP Photo by Frank Przykucki)

Education secretary outlines reform package

By **DON MacMASTER**
WPP Director

Secretary of Education Richard Riley spoke recently at the 1994 Ford-Dingell Educators Conference at Greenfield Village in Dearborn. The focus of his talk was on education reform. Explaining the Clinton education package, known as the Goals 2000 Act, Riley said that the purpose of the legislation is to create bottom-up reform, "at the level of the learner."

There are four common sense building blocks to reforming our educational system, Riley said. One, we need to maintain high academic standards in our schools and high expectations for our students. Two, we need to be open to new ways of using time and technology in the classroom. Three, we need to support a culture of education. Four, we need to eliminate poverty, "which is our greatest obstacle to

educational attainment."

According to Riley, we need to rethink some of our old strategies, such as 50 minutes per class period and 180 days per school year, and we need to spend more time on core academic subjects. We need to be more responsive to student learning styles—to create learning environments that both inspire our gifted students and give help to students who need more time. We need to make our schools safe and drug-free places by creating a "National Community," where students, parents and teachers can work together to bring about positive change. In order to nurture a culture of education, Riley said, parents need to slow down. "Don't rush so much. Read to your children. Work with them. Turn off the TV."

Secretary Riley's message was well-received, in part because he was speaking to a receptive audi-

ence of educators and education administrators — "preaching to the choir" as he put it. But the audience clearly responded to his plain-spoken style. He did not try to finesse the issues or lard his talk with misleading jargon. He conveyed a vision for the future of education in this country that ties into the national dialogue initiated most productively by President Clinton last April in Memphis around the issues of personal responsibility and accountability, and the need to break the cycle of victimization, violence and hopelessness that is choking the life out of so many Americans.

When Riley finished, the audience rose to applaud his speech. Representative John Dingell, one of the most powerful lawmakers in Congress, met Riley near the podium to offer his congratulations, as did Representative Bill Ford, chairman of the House Education and Labor Committee. There was a feeling of focus and hope in the room. If reform is to reach the level of the learner, this is the feeling that will fuel the process.

ACC to host 'Work and Humanities' workshop

The Community College Humanities Association and Alpena Community College will sponsor a three-day workshop in August for humanities teachers at two- and four-year colleges and universities.

"Work and the Humanities," to be held Aug. 4-7 at Alpena Holiday Inn, is designed to help humanities teachers integrate the subject of work into the curriculum through the development of interdisciplinary courses and the infusion of new units on work into existing courses.

Workshop leaders will include Frithjof Bergmann, professor of Philosophy at the University of Michigan; Benjamin Hunnicutt, professor of Labor History at the University of Iowa; Madelyn Mayberry, artist and

professor of humanities at Marshalltown Community College in Iowa; Robert Sessions, professor of philosophy at Kirkwood Community College in Cedar Rapids, Iowa; John Wortman, professor of history at Kirkwood; and Fritz Williams, ethical culture leader and writer-producer at Public Television station WTVS in Detroit.

The workshop will present a mix of lecture, film, video, reading and discussion designed to expand college teachers' appreciation of the significance of work and its place in literature, history, philosophy, art and other disciplines. It will also introduce instructional models, and it will help participants develop plans for implementing units of study on work.

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FRANK PRZYKUCKI	NEWSLETTER

A newsletter published monthly, circulated to current and former Workplace Partnership Project participants, members of the faculty and staff of Alpena Community College, and other interested persons.

Algebra has many uses in the workplace

By FRANK PRZYKUCKI

Diversity is the name of the game when Workplace Partnership Math Instructor Kendall Sumerix conducts algebra applications classes at Fletcher Paper Company.

Because he works with people from a number of different areas in the plant at the same time, Sumerix had to come up with a curriculum that would mean something to everyone. That meant developing broad topics that were understandable to everyone in the class.

"I had a heterogeneous classroom," Sumerix said. "Some were from payroll, secretarial, coating room and management. They weren't from the same places in the plant and did not perform the same jobs. ...I couldn't go down to the work site and pick out exactly what they were doing because what one was doing was different from someone else."

The end result, Sumerix said, was

classwork that wasn't job specific but general algebra applications. "The interest was common ground. I got them to figure out formulas on their own and see how they could use a computer program to do the work for them. They just had to figure out how to communicate with the computer."

Sumerix said he developed eight different assignments for the 16-hour course, each designed to teach students something about how to use formulas and numbers to solve problems. Although the problems were mythical in nature, they drew parallel to real-life situations both on the job and at home.

Initially, the students were asked to solve problems for a mock company coincidentally called "Acme Paper Co." Sumerix said he had them use a set of data to construct a variety of graphs, including x-y, line and bar graphs.

"Paper math" is the title given to the

second session and involved basic math as well as radicals and the proper use of parenthesis. "I gave the students a set of numbers and had them perform calculations," Sumerix said. "They had to construct formulas that would give them the right answers."

"Project Paycheck" had the Fletcher workers looking at a meaningful scenario in the third session. They had to take a list of people with fictitious names and, using formulas plugged into a computer spreadsheet program, determine what those people would take home in their paychecks after deductions.

The remaining sessions continued to perfect formula development by having students solve problems in simple and compound interest and to determine the percentage composition of chemical mixtures, which is done on the shop floor in the coating plant.

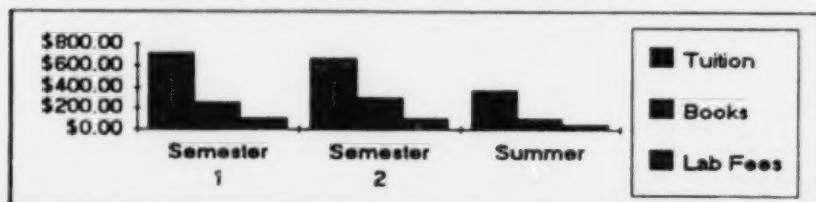
"The last thing I had them do in class was an independent project where they would use formulas, graphs and charts on the Excel spreadsheet to portray some aspect of their work on the job," Sumerix said.

Sumerix added that his classes have evolved into a new product. With every new group, he said, new and different topics were introduced. "Every class is different. There's no rigid class plan. You have to start where the students are ready to begin. Most importantly, you can't go too slow or too fast."

Some samples of student work ...

Projected College Expenses

	Semester 1	Semester 2	Summer	Total
Tuition	\$720.00	\$670.00	\$370.00	\$1,760.00
Books	250.00	300.00	100.00	650.00
Lab Fees	100.00	100.00	50.00	250.00
Total	\$1,070.00	\$1,070.00	\$520.00	\$2,660.00



Fletcher Paper Co. students used the Excel computer program to produce these samples of their work. Below is a table to determine percentages of chemicals in a mixture.

%-1st	Amt-1st	%-2nd	Amt-2nd	%-Final	Amt-F:
25%	40	90%	8	36%	48
0%	100	100%	5	5%	105
40%	150	65.50%	350	58%	500
13%	2200	100%	35	14%	2235
0%	93	83%	3	3%	96

Progress Report

Students served: 200
Unduplicated: 165

Current course offerings:
— Workplace Problem Solving
— Workplace Math Applications

Workplace Voices

Wandering down the Internet 'superhighway'

By Don MacMaster

The big news in our office is that we're on the Internet. With a click of the mouse on our office PC, we can now access a variety of databases, such as the current weather forecast for Organ Pipe, New Mexico (High 105, Low 63, Precipitation 0), detailed demographics on Alpena County (did you know, for instance, that more people lived in Alpena County in 1970 than in 1990?), or a menu item of interest on adult education (you could, for example, through EDNET access current research that explores the educational potential of the Internet, "a very active list" out of the University of Massachusetts.) All this information is currently available for free. The trick is figuring out how to make use of it.

The Internet is a labyrinth of detail loosely bundled into themes that are collected in directories which are collected in directories of directories. Considering that even expert navigators have a hard time describing the inner workings of this system, it's no surprise, I suppose, that after my first week on the Internet I tend to find myself veering from the original search to circle around, backtrack, stumble, start over, and finally drift off onto a tangent. It seems like there is no shortcut around getting lost.

Pondering this recently, during a trip downstate to hear Education Secretary Richard Riley speak, it occurred to me that cruising the Internet is a lot like driving in rush hour traffic in a big city with only a vague idea of where you're going. Perhaps this analogy occurred to me because I'd left my roadmap at home and was currently lost in Detroit, wandering up and down Woodward in search of Cass Tech High School, which the parking lot attendant at the Fox Theatre told me would lead to a shortcut to the Southfield Freeway.

"You can't miss it," he said.

Ten minutes later, with the downtown skyscrapers receding in the mirror, I began to get the feeling that somehow I'd missed it. But I wasn't as frustrated about being lost as I normally would've been, because the day was warm and the streets were bustling and I'd never been this way before. At Third and Glendale I spotted Highland Park Community College. Hey, I told myself, they're in our conference; I wonder what's going on there today. So I pulled over to the curb, parked behind a cab, and spent an hour looking around Highland Park Community College, learning some things about an interesting place I never would've encountered had I not been hopelessly off course.

This has been my learning pattern on the Internet, too. To me, a novice, the beauty of the Internet is this potential for unexpected connection, where you learn something useful you would've never known to pursue. For example, recently I logged on and clicked on *Education*. Eighteen items came up on the screen. I chose number eight — *Literacy* — and the second of ten items on the menu was *NCAL* — the National Center on Adult Literacy, a major research and advisory group in our field. I've been interested in knowing more about NCAL, so I clicked on it and seven items came up. I started at the top and went through all seven. Number seven was tagged *advisory committees*. That might be interesting, I thought; I wonder who sits on those committees. I clicked on it and a list of names came on the screen. Not far down the list, Dr. Ron Gillum's name came up.

Ron Gillum is the director of adult and extended learning for Michigan. Well-respected nationally, he's helped out our project a number of times, giving us the kind of support that keeps a project going. Not long ago, in fact, he sent a very nice note along because he'd been moved by an article Janet Fulton had written in the *Work Place* newsletter. An excerpt from Ron's letter:

I recently received a copy of your February newsletter "The Work Place" and truly enjoyed reading it. Janet Fulton's article was just outstanding. Her enthusiasm and excitement really came through as she discussed the conference she attended in Washington D.C. Janet's closing comment was one that I shall long remember and perhaps repeat, "Learning is a gift to be enjoyed all our lives through. Literacy is the tool to make it come alive."

Warmest regards,
Ronald M. Gillum

Of all the information we processed that day in the office, probably none has more long-term significance than finding out that a friend of our project has a voice on the board of the major policy-shaping entity in the field of adult literacy. The Internet is great for detail like this.

Whether it can create jobs and markets or new means of production, as its most ardent proponents claim, is open to debate. Many critics think its potential is being way overhyped, calling it little more than an electronic party line with 10 million users. In the Workplace, one thing we've learned is not to waste too much time debating these big picture questions. We'll continue to work on developing practical applications for this new technology. If you have any ideas, feel free to contact us through the Internet.

THE WORKPLACE

ALPENA
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Career change brought Besser manager to Alpena

By FRANK PRZYKUCKI

A strong desire to live in northern Michigan brought Kathleen Dapprich and her family to Alpena in 1975, but the move meant making career changes and Alpena Community College helped her with part of the transition.

Now in her seventh year at Besser Company, where she is engineering department documentation manager, Dapprich recently completed a brief stint in the classroom. Last fall she participated in a reading and information management course taught at Besser by reading instructor Janet Fulton of the Workplace Partnership Project.

"Keeping organized is hard to do when you have so many directions that you have to go in," Dapprich said. "Taking Janet's

class helped me think more about how to organize things."

Dapprich feels the WPP class helped open up new possibilities for her.

"It made me realize that there are things that can be done to improve the way one organizes things. As far as reading goes, just because you are used to reading one particular way, it doesn't have to be done that way. There are alternate ways to improve reading skills for various applications.

"Taking that class made me realize that I should be challenging myself to think of different approaches to taking in information. You don't have to verbalize everything that you read.

"I thought it was especially neat that Janet brought laptop computers to the

class and had them all ready to use. She set a great example as far as organization goes."

For the Besser class, Fulton used a computer reading program entitled "Bookmaster for Speedreading." Dapprich found the program impressive and purchased a copy for the family.

"It was a Santa gift for Christmas," she said.

A native of Frankenmuth, Dapprich earned a bachelor's degree in education at Eastern Michigan University. Following their marriage, she and her husband, Charles, made their home in Dearborn where her time was divided between raising a family and teaching part time.

The decision to move away from the big city and raise their children in a northern Michigan environment was followed closely by a job hunt that landed Charles a position in Alpena in the insurance profession. The relocation left Kathleen having to consider some options when she was ready to return to work full time.

"I either had to go back to school to renew my teaching certificate or go into a different field," Kathleen said. "I didn't really want to relocate away from my family to continue my education. I ended up going to ACC for the two-year drafting and design program.

"It was my background in education combined with that (associate's) degree that helped me get this job. Besser was looking for someone who could train people who were already here to use the system they were acquiring. They wanted a person who could continue training in the future as departmental changes and company changes would take place."

(Please turn to page 2)



Kathleen Dapprich, engineering department documentation manager at Besser Company, sits at one of the company's CAD terminals in her department. (WPP photo)

Conference focuses on continuing education process

By JANET FULTON

Making The Point Together: A Conference for Adult & Continuing Educators, was a "practitioners' " delight. Two distinct needs of mine were met in this Phoenix, Ariz. setting and conference theme. My need for true warmth after a long cold northern Michigan winter met its match in 109 degree days and 79 degree nights. My lifelong learning process, currently that of honing teaching and research skills to effectively serve adults in the Workplace Partnership Project, was met in the many conference workshop sessions and in interaction with truly talented and engaging colleagues.

The concerns that led to this conference, sponsored by the Commission on Adult Basic Education (COABE), were instructive:

- Adult and continuing educators need to work together for continued success.
- Learning is a lifelong process.
- Professionals in this field need to share their experience and knowledge base.
- We are equal partners in the educational process of an individual.
- We need to look back at where we have been, see where we are, and consider where we want to go in adult and continuing education.

Each session brimmed with practical information. Presenters had forged their theoretical constructs with experiential labors to produce qualified, inviting, and enlightening sessions: "You Hoped You Couldn't, But You Can: Develop Your Own Workplace Literacy Software;" "We Can't Do That! — Can We Do That? Writing and Evaluating Curriculum for the Workplace;" "Customizing Curriculum in the Workplace;" "Integrating the Adult Learner Into the World of Computers;" "Interactive Videodisc

Instruction;" were just a few of the quality sessions I attended. They stimulated my thinking and expertise in delivering the training/teaching that is so very important to our students' daily successes on the job.

A practitioner is one who practices a profession. My profession is instructing and educating adults concerned with developing their reading skills. Cultivating and developing those skills is no longer optional in today's changing workplace. Not even in our changing society. Because practitioners are concerned with things that work, maybe that's why I found myself enjoying this COABE conference so

Career change brought Besser manager north

(Continued from page 1)

Kathleen's duties at Besser Company are many, but center around supervision of the computer aided design (CAD) area in the engineering department. She schedules CAD equipment, takes care of software maintenance on the system, arranges hardware maintenance and repair and does system training for employees.

"I train people as they come into the department to work on our CAD system and also within the department as people change tasks and need retraining," she said.

Dapprich is also responsible for a central data base, and spends a lot of time keeping that material organized and accessible to all the users. She maintains backup data files, supervises printroom operations, is responsible for duplication of paper documents (internally as well as for customers and vendors), and manages documentation for purchase parts.

Because of her background both in teaching and in the ACC drafting and design program, Dapprich has been able to devote some time to her original profession. For the past four spring semesters, she has taught a technical

very much. During this conference, practice — founded in tried and tested times interacting with students — was the focus. Helping students meet their learning agendas was the goal just as much as assisting instructors in their understanding of new theories and the emerging teaching landscapes.

Attendees were encouraged. Some were honored for their current contribution models. But all were challenged to become more than they ever thought they might become in the effort to provide a more solid foundation, in each of our communities, to meet the multiple needs of the adult learner.

drawing class at Alpena Community College and serves on the college's advisory committee for the drafting and design program.

Kathleen and her husband make their home on Piper Road in Alpena Township and are eagerly awaiting their move into a new house they are building on Bear Point Road. They are the parents of two grown children: a son, Dan, a spring graduate of the University of Michigan School of Business; and a daughter, Johanna, a sophomore at Eastern Michigan University.

The Work Place

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A newsletter published monthly, circulated to current and former Workplace Partnership Project participants, members of the faculty and staff of Alpena Community College, and other interested persons

Listening: a lost art is being regained

By DR. RICHARD LESSARD

In a recent class at Fletcher Paper, students decided to examine listening in the workplace as it related to their overall communications needs; we soon found out that this was one of the most important yet neglected components of the communication chain. We easily could have devoted an entire course to listening alone. At first glance, it doesn't sound like we could generate a WPP class around something as "simple" as listening, but the art of listening is far from simple.

Humans listen more than any other single communicative activity. According to the latest research, people spend approximately 80 percent of their time at work in some form of communication. This is an average; some spend much less time communicating while others do little else. Of that time, 9 percent is spent on writing, 16 percent on reading, 30 percent on speaking, and 45 percent on listening. Educationally, we can all remember taking reading and writing classes, and some of us even took speech classes; but how many have ever had any formal training in listening? The sad fact is, we have had the least amount of education and training in the communication activity we need to do the most.

Most of us think we are good listeners and it is this overconfidence that has created much of the difficulty. Hearing, which is non-selective and involuntary, is actually the mere beginning of the listening process. Hearing is sound detection; listening is meaning detection. If we aren't careful, we can become distracted by all the other dynamics in the communication process and miss the real meaning of what someone is trying to tell us. Since none of us can take in and recall 100 percent of what someone tells us, we must learn to be selective about what we are hearing, so we can pick up the intended meaning.

This doesn't mean that a class in listening will make a person accurately interpret and remember every thing that is said. But without any training, most people can muster less than 50 percent efficiency during the first part of a conversation, then the retention rate rapidly declines after that. The average is about 25 percent retention efficiency in a typical spoken exchange. That means we miss, misunderstand, misinterpret, ignore, forget, distort and generally botch up 75 percent of what is said to us. Then after one day we can expect to remember less than a third of what we picked up the day before, and the retention rate goes steadily down as time passes. Not encouraging statistics, to be sure; they mean that poor listening is a major hidden cost of doing business. Organizations pay for mistakes caused by inefficient listening with lower profits, and we all pay with lower wages and higher prices.

One of the problems is rooted in the fact that humans can talk at from 110 to 140 words per minute, while people are capable of hearing between 300 and 400 words per minute. This means that we have a lot of extra time on our hands (minds) while someone is talking to us, so we tend to take little mental side trips while we are supposed to be listening. Bottom line—we must learn how to take control of what our minds are doing while others are trying to convey messages to us.

So efficient listening isn't something that occurs naturally. It requires concentration, effort and energy; that's why we're fatigued after listening to important information for even a short period of time; that's why high energy talkers tire us out. We have to develop those skills which will help keep us focused on the most important information we are taking in. It takes motivation, education, and practice, but it makes good sense to improve listening skills. It's just good business.

Technology and Careers Night is Aug. 2

Alpena Community College will host Technology and Careers Night from 7 to 10 p.m. on Tuesday, Aug. 2 in Besser Technical Center.

Instructors Tom Winter of auto body, Rick Engstrom of auto service, Bob Eller and Gary Knight of concrete technology, Owen Lamb of drafting and design, Ivan McLaren and Greg LaFeldt of machine tool and Gerald Hardesty of welding will show prospective students and their families how much ACC has to offer.

ACC recently updated instructional equipment and facilities in these areas and one of the best ways to recruit students may be to have people stop in and see for themselves. Technical programs prepare students to enter the work force after just one or two years

of training; some can be tailored for transfer to a four-year degree university program. Individual courses can also be taken by people already employed who want to update their skills.

The event is an open house format, so you can drop in at your convenience. Information sessions on financial aid will be held at 7:30, 8:15 and 9 p.m.

Progress Report

Students served:	206
Unduplicated:	171

Current course offerings:	
—	Workplace Problem Solving
—	Workplace Math Applications

Workplace Voices

Tawas Plating worker likes the changes he's seen

By Steven Shover

Editor's note: Steve Shover is a chemical analyst at Tawas Plating. He has worked for the company for the past 11 years and was a member of the "pilot group" of students who took the first class offered at that facility.

*** **

Dear Don and Rich:

Well, a year has gone by since we had our Communications 080 class here at Tawas Plating Company. It sure doesn't seem that long ago. I want to thank both of you for a great job. It was great that Kevin (Tawas Plating President Kevin Jungquist) offered us the chance to participate in your class, which was done on company time and expense.

As you know, we had a lot of problems to deal with. One department was not getting along with the other, and some people in the same department



Steve Shover at work in the Tawas Plating Lab. (Photo by R. Lessard)

were not telling each other what was going on. Well, then one day Don MacMaster, a neutral party who was on nobody's side, came to our plant with a communications class in-house from Alpena Community College, someone who would sit down with management and employees and listen to what both sides had to say. When the classes started no one knew what to expect. No one was willing to do book work or a lot of writing. But the format was very open. It seemed that everyone was walking on eggshells. The first sessions ended up with a lot of people letting off steam and getting their feelings out in the open. After this was done there were a lot of discussions on different problems and what was the best action to take.

We learned what kind of communicators we weren't.

Halfway through our class, Don had to leave us to take a job promotion. However, when you left you brought us Dr. Richard Lessard to take your place. Again no one knew what to expect. However, you left us in very capable hands, the transition went very well. Dr. Lessard was able to pick up where you left off, and take us closer to our goals.

Once we started to communicate we found that we worked very well as a team and were able to extend our class to complete some projects we started.

I feel that your objective opinions helped us take a giant step in the right direction, to help ourselves and Tawas Plating Company.

Today we have a much better working environment and better attitudes. Production rates are up, rejects are down. There is a lot more communication now than a year ago! Don't get me wrong, there is always

room for more improvement. But thanks to you, we are starting to help ourselves. We have a safety committee that is getting results along with quality circles in different areas of the plant. They are also getting positive results. I think with the help from the classes and from ourselves we will make it.

Thanks go to Don MacMaster and Dr. Richard Lessard and Kevin for allowing us to participate in this class. Hopefully there will be more in the future.

Thanks again for everything.

*** **

The Workplace Partnership Project team welcomes contributions from students for publication in the WPP monthly newsletter The Work Place.

WPP

ALPENA
COMMUNITY COLLEGE

Volume 2 Number 1

(517) 356-9021 Ext. 344

October 1994

WPP sets course on new 3-year journey

By DON MacMASTER

WPP Director

We've had a love-hate relationship with our mailbox for quite some time now. When we finished writing our grant in the spring and sent it out to Washington, the mail seemed like a friend to us, the channel through which our hopes for the next three years would sail smoothly to port. As the weeks passed, however, with no official word on its status, we stopped looking every day for the serious brown wrapper stamped with the stern qualifier *Official Business, Penalty for Private Use, \$300*, that marks correspondence from the U.S. Department of Education, and we settled into a sort of uneasy calm waiting for news to get back to us.

Then in June, we heard a rumor: some projects had already received their rejection letters. Washington would only confirm that on June 25, they had mailed out the last of the rejection notices. In other words, if we did not receive mail from them in the next week, we'd probably still be alive. Overnight the mail room was transformed from a warm and friendly port to something akin to a Superfund site. No one wanted to go near the mailbox, as if it had suddenly become radioactive. Heavy sweat and blurred vision broke out every afternoon when the mail carrier arrived.

During this period, I heard a horrible (but funny) story about a project

director who had not received a rejection letter consoling one who had. The fortunate director said all the right things, according to the unfortunate director, and put a great deal of sensitivity into this sage advice: "Tough times don't last, but tough people do." Unfortunately for the fortunate director, his rejection letter had been lost in the mail. When it finally arrived, the fortunate director had the rare opportunity to sample his own advice.

The letter we'd been waiting for since spring finally arrived in the mail last week, informing us that our federal workplace literacy grant has been refunded for three more years. We feel good about this for a number of

reasons. The fed received over 330 applications, many from highly regarded practitioners and researchers across the nation, and funded only 46. But closer to home, the funding allows us to continue meeting the workplace education needs of people in the community who deserve to have their needs met.

Personally, I'd like to thank the people I work with in the WPP: Ann Schultz, Frank Przykucki, Dr. Richard Lessard, Janet Fulton, Kendall Sumerix and Rob Abram. Their talent and commitment continue to keep this project moving. I don't think we've levelled off as a team yet, and that's the part that excites me the most.



Dr. Eunice Askov of Penn State University, outside evaluator, reviews curriculum details with WPP Instructor Kendall Sumerix during her recent visit to Alpena. (WPP Photo)

Bulletin boards play a role in cyberspace travel

By FRANK PRZYKUCKI

Traffic on the Internet "information highway" is getting heavy these days, as new users rush to join the parade, but there are other avenues that can be just as exciting and a lot less hectic.

Computer bulletin boards have been around for quite some time and are becoming a lot more sophisticated than their name implies. One of those is Micro Assets BBS of Alpena, which has been in operation for more than three years. Under the guidance of founder Jesse Godsey, the local board offers refreshing territory for owners of personal computers.

Computer information services like Prodigy, America Online and CompuServe offer significantly more in resources than the average bulletin board, but they can be expensive. Alpena's BBS, on the other hand, gives computer buffs access to a variety of files for a mere \$50 annually. That fee pays for up to an hour of on-line time daily.

The Workplace Partnership Project tentatively plans to implement a scaled-down version of a bulletin board in the near future that would directly benefit clients of the project. Proposed by WPP Reading Instructor Janet Fulton, the service would allow clients to access resources of the project via a computer, even during non-office hours.

Commercial computer networks and bulletin boards basically serve the same purpose, differing only in complexity and mission. While commercial outlets need to appeal to a wide range of interests, bulletin boards can and usually are more focused.

Godsey's operation is a hobby that has grown into a business. He couples the bulletin board with other services such as computer tutoring and freelance programming operating under the name "Micro Assets."

"I'm basically looking at providing a public service," Godsey said. "There's a lot of information that people can get and utilize, not only for personal enjoyment but at the business and professional levels. It (the bulletin board) is really user



Jesse Godsey stands beside the satellite dish that brings in fresh files for his Alpena Bulletin Board. (WPP Photo)

friendly. People don't have to go through all the rigmarole of getting on the Internet while wondering, 'how do I get what I need?'"

A native of Camden, Mich., Godsey came to Alpena four years ago after serving a tour of duty in the Air Force. While in the military, he had been stationed at Wurtsmith AFB where he was responsible for automating all the scheduling for operations and maintenance.

Godsey started his bulletin board six months after coming to Alpena to work for Courtney Retirement & Investment Services as a Novell administrator and programmer. He has since taken a job doing the same kind of work for the Northeast Michigan Community Service Agency.

At age 26, Godsey has been working with computers nearly half of his life. "I'm self taught," he said. "I started out 12 years ago with a Commodore 64 and, just like any enthusiastic kid in high school, I decided that this is what I wanted to do..."

Godsey said he is constantly working to improve his board for the approximately 185 computer users who have signed on

as members. He provides access to more than 40,000 files via three telephone lines hooked to his computer system set up at his home on Eagle Drive. Recently, Godsey installed a satellite download system to recover new files via the Fido Net -- a commercial network he subscribes to. The addition allows his customers to access fresh news files from USA Today and graphics such as weather maps and photos from weather satellites.

Godsey's board allows data transfer at rates up to 14,400 bps. He said all that the customers need to sign on are a computer, modem and communications software. Many computers sold today already come with some of those necessities.

Godsey said all his current customers have learned about the BBS by word of mouth. He is confident that many more would want to sign on if he were to advertise, but his plan has been to proceed slowly and carefully to ensure a quality product.

"Most of the money I make is all spent on upkeep of that machine," Godsey said. "It pays for itself, although my wife sometimes argues about that."

Computer owners who have the proper equipment can connect to the Alpena BBS via two phone numbers -- 356-4255 and 356-3478. After making contact, the user is escorted through a series of introductory steps while on line. Customers

(Continued on Page 3)

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Reading power may be key to future success

By JANET FULTON

Developing your reading power may be just the key to your future success in the workplace and your survival in the global village. Reading is not simply or only a basic skill. It is a lifelong learning fundamental. And what we need in this day and age is not just the ability to read faster. Reading more efficiently is the backbone

of remaining competitive in today's changing workplace.

Information is bombarding us at an overwhelming rate each and every day. Verbal, oral and written messages pound our senses and overwhelm our fading reserves. On the one hand we cry out for simpler times and fewer demands. On the other, we long for more effective processing skills just in

order to survive.

Developing your reading ability is an individual developmental process. No one else can do it for you. It happens over time and takes disciplined work to maintain. Increasing reading speed is a good example. Initially you have to believe that you can change your reading speed. As specific techniques are practiced, speed does increase while comprehension usually decreases. This is normal. Increased comprehension generally builds again, but only after some diligent practice. As many people begin to experience the "awkward" feelings connected with reading faster (while losing comprehension), they end up abandoning the learning process. They return too easily to their established patterns for reading speed and comprehension. That is why it is so important to commit yourself to some type of reading training. A place where instruction, practice and accountability are merged into a powerful learning environment.

Workplace Partnership reading courses can be just the learning environment you need to work on developing your reading skills. It's like having your own personal reading trainer. Comprehension, concentration, vocabulary and accuracy are just a few of the enduring skills you can master.

Are you committed to being the same reader today that you were last year or are you ready to become the best reader you can be? No matter what your reading experience, you can acquire that vibrant skill of gulping in information at a glance. Embark on your reading development program today. Keep your lifelong learning skills at the cutting edge.

Online service introduces exciting medium

(Continued from Page 2)

may sign up immediately by using a 900 telephone number and have the fee charged to their phone bill.

Godsey and his wife, Christina, reside at 301 Eagle. They are the parents of a son, Jordan, age 10. Assisting Godsey with his bulletin board project are Bill Hood, formerly employed by Alpena Community College and now by Thunder Bay Manufacturing; and

Colin Lamb, employed by Duffy's Computers of Alpena.

In the near future, the WPP will be setting up its own bulletin board to serve its partners. How that system will work and what services it will provide are still being worked out, but it is sure to offer an exciting alternative for participants in the project. Developments will be outlined in this newsletter as they occur.



Jesse Godsey works at his Alpena Bulletin Board nerve center. The menu on the screen, in full color with graphics, is what customers see after logging on to the service.

Progress Report

Students served: 16

Current course offerings:

- Level 1 Workplace Math (Introduction to Geometry, Metric Conversions)
- Level 3 Workplace Math (Math with computer applications)

Workplace Voices

Communications: it's not rocket science

By Dr. Richard Lessard

When partner companies are deciding which classes they want us to offer next, a communications class is seldom the first thing that comes to mind. Organizers easily see the relevance of math, but applications of WPP communications classes are less obvious. Usually the first images brought to mind are of writing, accompanied by visions of nightmarish English classes from junior high or high school days. People conjure up memories of the traditional rap-your-knuckles learning, the desecrating red-ink smeared all over their creative efforts. "No," they decide, "we don't need any more of that. Besides, we don't do much writing on the job." Valid statements all, but the reality is, the communication skills required in today's workplace encompass much more than writing papers and learning grammar rules.

On occasion, we have offered various alternatives to traditional writing classes, with varied success; but by far, our most successful classes have been those dealing with overall communication strategies for specific work situations, courses custom designed by the companies and the workers themselves. In these classes, students have collaborated with the instructor to find ways to improve communication at their particular facilities. For example, at Tawas Plating, students chose to address ways to link everyone in a communication chain, then they created ways to promote more positive interaction among employees once the classes were over. At Fletcher Paper, students wanted to work on narrowing the gap between what the sender was trying to say and what the receiver was picking up. These two agendas resulted in two very different classes.

Businesses today are rife with communication gaps and misunderstandings. We are communicating with wider audiences than ever before, and these different people bring us their own styles, their own histories and personality quirks. It makes it difficult to get our meanings across without committing some unintended gaff or inadvertently pushing someone's hot button. This is because communication is not an exact science. It does not have a regimented set of precise principles and procedures that always yield the same results, as does, say, math; in math, when we use the proper formula it yields the same results, regardless of the situation or the audience. But there are literally thousands of variations in the ways people communicate, and what works for one person won't work at all for another.

Have you ever had a very good idea that you couldn't get another to accept? Ever been flabbergasted when someone told you what you just said? It wasn't what you meant at all! We have all been in these positions. Unfortunately, what really counts is not simply our initial thoughts, but whether or not we can make them understood and credible.

In the world of business the ability to convey an idea is as important as the idea itself. The problem is, the majority of people send inconsistent messages. Good as their idea may be, the delivery system used to get it out there is letting them down. People often interpret our messages much differently than we realize. Dr. Albert Mehrabain of UCLA conducted a landmark study on the three main elements that are communicated each time we speak. He found that listeners gather 55 percent of their meaning from visual cues (body language, facial expressions, etc.), 38 percent from the tone we are using, and a mere seven percent from our actual wording. While we reserve our best efforts for the wording of our messages, that is the element that provides our audiences with the least meaning. More importantly, it is the inconsistency between the three elements that creates confusion and/or lack of credibility.

Dr. Deborah Tannen looked into the meaning of the "metamessages" we send as we speak and write. These, she said, were the meanings "between the lines" that people pick up from the particular choice of words we use, pauses, eye movements and when we break in or stop talking. Who really does all this stuff, you ask? We all do, maybe not at a conscious level, but we all find ourselves thinking, "He didn't mean a word of that; here's what he is really saying ..." Or we often hear people say things like, "She thinks she has everyone fooled, but you can tell by the way she talks it's just an act." The key here is "by the way she talks," for that validates the notion that what is said is only a small part of the meanings people are picking up.

Generally people don't think of those things when they consider offering WPP communications classes. But in the workplace, they are crucial to efficiency and cohesion. Efficient actions are unlikely to occur where there is no credibility or agreement. In communication classes, the goal is to build credibility and validity into everything we convey to others. Though that may sound vague, it serves well as a beginning premise; from there, we, with the help of the students, try to tailor our WPP communication classes to suit the specific needs of a given workplace.

THE WORKPLACE

ALPENA
COMMUNITY COLLEGE

Volume 2 Number 2

(517) 356-9021 Ext. 344

November 1994

Workplace classes get customized treatment

By **DON MacMASTER**

Someone asked me a very reasonable question last week: "How do you get a workplace class up and going?"

In places we've worked before, where a track record has been estab-

lished and we have a working knowledge of the literacy skills workers need now and in the future, setting up a workplace class sometimes can be a fairly uncomplicated matter. We set up a class matching an instructor to the

expectations of the men and women in the class and then find a mutually-agreeable time and a place where the class can be taught. But if we've never worked there before, it is a huge job to work through all the details that need to be nailed down in order for a class to succeed. Here's a working checklist we use to cover the key start-up concerns.

1. Preliminary dialogue with key players in the organization, including management and labor if the workplace is unionized.

2. Set up an advisory group that represents the concerns of everyone.

3. Discuss issues such as curriculum, recruitment and scheduling with this advisory group.

4. Tour the workplace. Learn as much as possible about the tasks the workers do and the educational needs they have now and will have in the future.

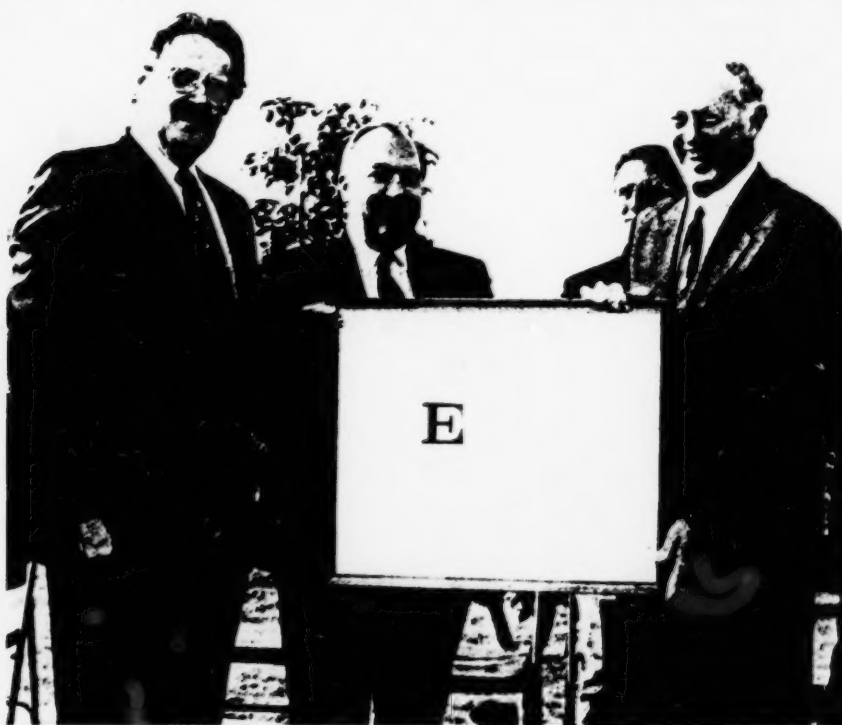
5. Use materials or scenarios that directly apply to the workplace, build a curriculum that addresses the needs identified by the advisory team, the workers, and the instructional team.

6. Be flexible from an instructional standpoint. Look for ways to build in the knowledge and experience workers bring to the classroom.

7. Involve workers in their own assessment and evaluation. Be creative in looking for ways to measure the impact of workplace classes on individual or organizational performance.

8. Document relentlessly.

(Continued on page 2)

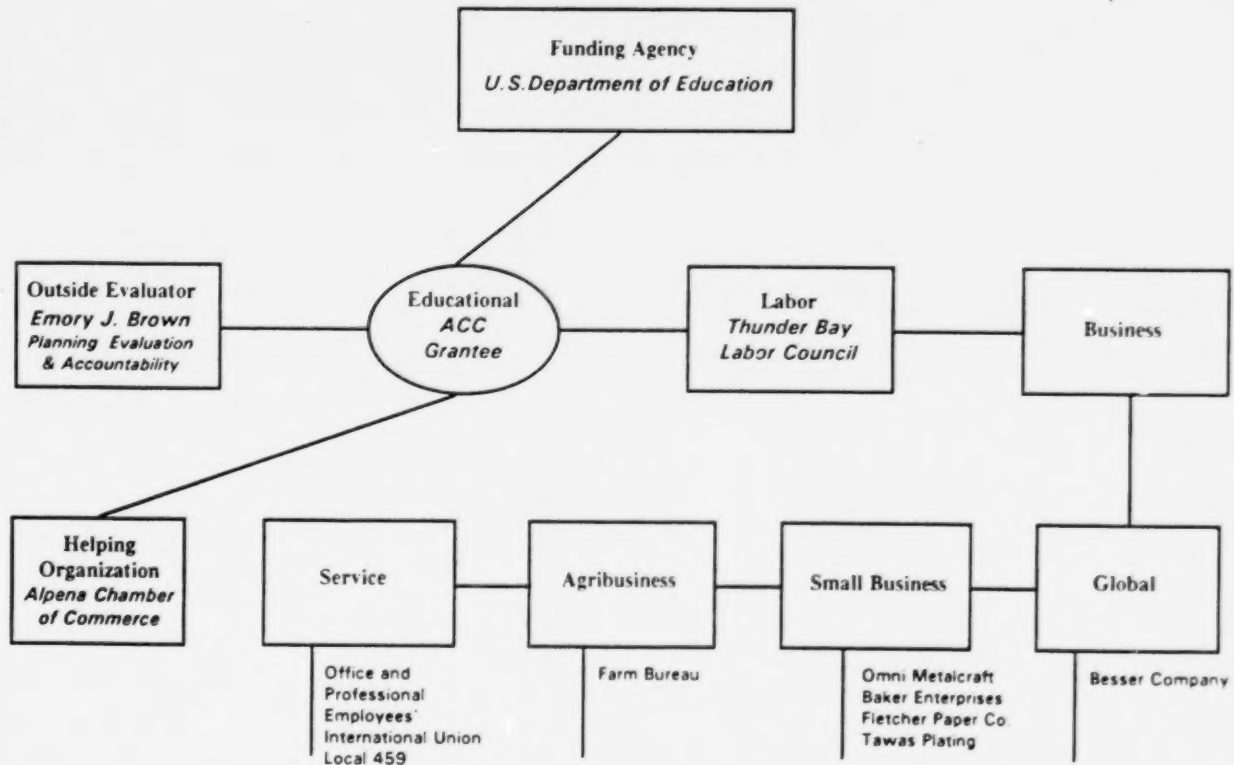


WPP partner honored

James C. Park (right), Besser Company president and chief executive officer, accepts the President's "E Star" award for excellence in export from Dean A. Peterson (left), director of the Detroit District U.S. Department of Commerce office. Michigan Gov. John Engler (second from left) gave tribute to the Alpena firm during ceremonies Oct. 13 in front of Besser World Headquarters. Behind Park is Dr. Donald Newport, Alpena Community College president, who joined Workplace Partnership Project Director Don MacMaster in outlining the importance of the college, business and industry partnership. The award was created in 1969 to recognize superior performance of "E" award winners — an honor Besser Co. earned in 1973.

(Four Seasons Photography photo)

Project Funding and Organizational Flow



Alpena Community College, in partnership with one medium-sized business active in the global marketplace, four small businesses, local agribusiness, union representation of foster care service providers and Thunder Bay AFL-CIO Labor Council combined to propose the third Workplace Partnership Project for northeastern Michigan. The above chart outlines the project's funding source and organizational flow.

WPP classes get customized treatment

(Continued from page 1)

The beauty and challenge of this project is that each workplace is different. Currently, we are working with the Alpena County Farm Bureau, and it's fascinating business to work backward from the types of issues and concerns that exist in our agricultural community — such as figuring out how to use math and computers to refine record keeping, calculate feed mixtures, or match fertilizers and soil samples — and to begin to think about how these issues might be incorporated into a struc-

tured learning environment.

Our current focus is to establish a working dialogue with the potential recipients of our services, ask the questions that allow them to share their needs and knowledge with us, listen, then move quickly to develop a substantive class based around mutually identified issues, concerns and opportunities.

It's a very exciting time for us, heading into turn one of a very steep learning curve. We'll keep you posted as we work our way around.

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Computers add new dimension to classes

By JANET FULTON

WPP continues to seek out and develop the best and most appropriate materials for WPP instruction. Our partners' needs are important to us. That is why we look for challenging ideas, courseware, and computer software that will help students develop and improve their workplace skills.

WPP recently acquired A Day In The Life. This computer software/courseware is designed to stimulate reading and critical thinking skills development in a very special way. It employs the use of job scenarios and tasks that the learner must work through. In this way, metacognitive skills and strategies are introduced in order to develop on-the-job thinking skills and applications. A Day In The Life is divided into six instructional

modules. Module 1 teaches learners how to use the computer. Modules 2-6 teach some basic job skills needed for work in food service, health, maintenance, retail and clerical job fields.

Each job area is divided into job tasks or scenarios that learners must accomplish. In each scenario, learn-

of this is carried out right on the computer.

The program has also been designed to support students in the learning process. If a learner needs help in the middle of carrying out a job task, the program provides various ways that a learner can get assistance. There are full lessons avail-

Our partners' needs are important to us. That is why we look for challenging ideas, courseware, and computer software that will help students develop and improve their workplace skills.

ers must work within that environment often using a map, acquiring objects necessary to accomplish the task, filling out paperwork/forms, and actually completing the task. All

able on whatever is giving them difficulty. With the touch of a button, help is displayed.

This software has been developed by the Pennsylvania State University Institute for the Study of Adult Literacy and Curriculum Associates, Inc. Their goal was to design software that is a simulation of real-life job situations that require reading, critical thinking, and literacy skills needed for effective job performance.

As WPP prepares to serve new partners during our next three-year cycle, A Day In The Life is just one of the curricular applications we hope will be used to create an exciting and meaningful way for WPP students to improve their workplace skills.



Baker Enterprises employees are showing a great deal of interest in a current Workplace Partnership Project math class being taught by Kendall Sumerix. Demonstrating their willingness to do homework assigned during the class, employees (from left) Del Baughman, Mike Daleski and Steve Livermore huddle around portable computers to work on problems during off-duty hours. Laptop computers provided by the WPP have been made available to Baker workers for the duration of the course, so that they may do their assignments outside class time. The class has been meeting on Wednesday afternoons in the Besser Company pump house on Johnson Street.

Progress Report

Students served: 24

Current course offerings:

- Workplace problem solving
- Level 1 Workplace Math
- Level 3 Workplace Math

Workplace Voices

The status quo is no longer an option

By Dr. Richard Lessard

Author Peter Drucker says U.S. manufacturing needs to boost productivity by 50 percent over the next 10 years without adding numbers to the workforce if we hope to remain competitive with foreign industries. Businesses today are playing on a much larger field than they were even ten years ago, and this is forcing them to scramble to find new and better ways of doing things. To do this, they are tapping the creative resources of everyone involved. To maintain their present markets and compete for new ones while holding the line on present employee levels, companies will need to attract and retain quality employees. Consequently, many of our partners are asking us for problem-solving and decision-making courses to help employees integrate old ways and new ideas.

Indeed, the workplace is changing rapidly, whether we like it or not, and individual as well as company success is dependent upon the ability to learn new ways of doing things. Managers are responding by moving toward a team approach to production, and they are asking workers to handle problems at their sources. Employees are expected to assume a much more proactive role. In today's workplace everyone is expected to take part in managing change.

In fact, change is fast becoming the only constant in the workplace; change is the norm. In such an environment, no set of skills stays useful forever. No way of doing things works forever. The technical and communication skills learned in school or on the job can become obsolete in short order. Today it is not enough to know how to do something; workers need to keep up with technology, learn new skills, and solve problems together. To enjoy job security, people have to be prepared to absorb information from a variety of sources and look at things from a variety of perspectives. The "second job" of each employee is to help himself and those around him/her improve and upgrade.

Statistically, it is now projected that the typical employee will make a major job change at least five times before retirement, even if he/she stays with the same company. More startling, it is predicted that 20 percent of the jobs people are now doing will not exist 15 years from now, and 20 percent of the jobs people will be doing 15 years from now don't exist today. That foretells some major turnover in job descriptions in the next 15 years.

But change is not a comfortable process; it takes work and concentration — it takes time. It means we have to get outside our "comfort zones." Change has a tendency to lead us to

believe that there must have been something pretty awful about the way we were, that we were pretty clumsy, pretty ignorant to go on the way we had. Then there is risk involved; "What if it fails?" Living through the process could be compared to remodeling our house: we've adjusted to the old flaws and know what they are, but the new things venture us into the unknown. And once we start, things become a whole lot worse before they begin to look better. It seems so destructive and costly, both in economic and in human terms; even when we're through, we may find that it doesn't quite measure up to the idealistic images we had in our minds. We have to be careful about expecting too much, too soon.

We often find that many of the changes in our lives have not even been initiated by us; they get thrust upon us by outside

... individual as well as company success is dependent upon the ability to learn new ways of doing things.

forces, and we are compelled to go along with them. But in the long run, regardless of whose idea it was, the critical element is the process, the growth that people and companies go through. Too often the process is almost an afterthought. The end result is more typically point of focus, though it shouldn't be the main goal of the organization, for if the process is solid, other inevitable changes down the road will be easier to make. It will be easier to revise and perfect original ideas into something that will make everyone's time more productive.

Change is not hard to manage once it is accepted. The real challenge for our students is not in struggling with the specific problems we attack in the classes; most of them do a very impressive job with that. The real challenge is in combatting negative attitudes about change itself. Change must be seen as a natural evolution of progress, a means of building upon what we have learned and moving forward.

On the other hand, even when people are open to new ideas, there is seldom an instant, automatic transformation. Studies have shown that it takes at least twenty consecutive days of concentrated effort before a person can dismiss an old routine from the mind and create a new habit. The trick is getting people to commit to the change and stay with it before those twenty days are up.

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Benefits to Adult Workers, Business and Industry.

Significant benefits to adult workers, business, and industry have been documented. The survey comments below represent feedback from workers who have taken Workplace Partnership Project classes.

"Math helps me on the job and now other workers come to me for help."

"When I have trig problems to do, I just go ahead and figure out the angles. Before I had to wait for engineering."

"It showed me even at my age, I can still handle a classroom situation."

"It seems easier to learn now than it did when I had these classes in high school. Mostly because I want to learn them now, as before I felt it had no impact on the real world."

"Kendall Sumerix taught this old bird more than math. He taught me I'm not too old to learn."

"I took a class on workplace reading CNC. Since then I got a job on a CNC machine. The reading class was great. I still use some of the skills I learned."

"More deference (is being) given to my opinions by others in my life."

"I can still hear words that I studied in Reading class."

"I feel my writing skills have improved greatly. Style, content, punctuation, all have improved."

"I'm more confident when I speak publicly."

"I try to understand both sides of the story - try not to jump to conclusions or assume as much."

"The class enhanced my reading speed and in turn has enhanced my ability to absorb information on a daily basis."

"I believe it made me a better employee, knowing the company I work for cares enough to help educate me."

The survey summary points out that 56 percent of the respondents furthered their education since their first WPP class, 76 percent said it was the WPP that encouraged them to continue their education, 37 percent find themselves helping their children more with homework and 42 percent are reading or writing more. Also, 60 percent are more comfortable operating computers, 35 percent have purchased computers, and 65 percent said they have enjoyed salary increases, promotions or new job responsibilities since taking WPP classes.

At Tawas Plating, a significant decrease in rejection rates was documented by Kevin Jungquist, President of Tawas Plating, after six months of comprehensive, company-wide involvement in problem-solving classes ending in September 1993. Rejection rate is a key indicator of overall company performance and productivity because, as Jungquist pointed out, "You only get paid for doing the part once." The chart below compares rejection rates in the months following Tawas Plating's involvement with the Alpena Workplace Partnership Project to rates from the year before.

October 1993 vs. October 1992

- rejects down 20 percent in the nickel room.
- rejects down 18 percent in the zinc room.

November 1993 vs. November 1992

- rejects down 15 percent in the nickel room.
- rejects down 20 percent in the zinc room.

December 1993 vs. December 1992

- rejects down 65 percent in the nickel room.
- rejects down 26 percent in the zinc room.

January 1994 vs. January 1993

- rejects down 20 percent in the nickel room.
- rejects down 32 percent in the zinc room.

Overall: 1993 vs. 1992

- rejects down 31 percent in the nickel room.
- rejects down 20 percent in the zinc room.

Research indicates that improving the competency of adult workers in math, reading, communications, problem-solving and decision-making develops employee involvement and increases company productivity. The follow-up study summarized below, asking supervisors to assess the impact of Workplace Partnership Project classes on employee and company productivity, confirms these findings.

**Voluntary Supervisor Education Survey
Baker Enterprises**

The following are the average answers on a scale of 1 - 5, with 5 the highest

	<u>Overall Average</u>
(1) Please rate worker attitudes toward learning prior to the WPP.	2.8
(2) Please rate worker attitudes toward learning now.	4.3
(3) Please rate worker attitudes toward learning among workers who haven't taken WPP classes.	2.6
(4) Please rate overall employee productivity prior to the first WPP class.	3.5
(5) Please rate overall employee productivity now.	4
(6) Please rate overall employee productivity among workers who haven't taken WPP classes.	3
(7) If you see any improvement in overall employee productivity, how much of that improvement do you attribute to WPP classes?	4.2
(8) Please rate company productivity prior to the first WPP class.	3.2
(9) Please rate company productivity now.	4
(10) If you see any overall improvement in company productivity, how much of that improvement do you attribute to WPP classes?	4

However, benefits sometimes accrue of a more personal nature. After a communications class in which one worker successfully applied techniques covered in class to repair his marriage and then used the computer to rewrite his wedding vows, he said: "Y'know, I wish I'd had this class twenty years ago. We probably would've ended up with a different life."

Tawas Plating

Dr. Richard Lessard recently finished his fifth WPP communications class at Tawas Plating. About eighty-five percent of the employees — thirty-three men — have completed sixteen hours of instruction in collaboration and problem solving, and feedback from both workers and management has been quite positive. We distributed exit surveys asking the men to rate on a scale of 1 — 5, with five the highest, how they felt about their WPP classroom experience and its potential for application to their personal and professional lives. Here is a summary of what the five groups said about their classes:

- On a five point scale, they felt communication in the workplace improved an average of 1.31 points, from 1.66 to 2.97.
- The men credited the communications classes with most of this improvement — 4.07 on a five point scale.
- The men felt that the problem-solving projects that they worked on in class will be very valuable if instituted by the company — 4.34.
- Rating the overall impact of the classes on company productivity, the average score of all five groups was 3.59.
- They rated the overall impact of the classes on their communication and/or problem-solving skills outside the workplace slightly higher — 3.69.
- They felt more confident in their learning abilities after taking the classes — 4.00
- They felt confident that they could now be a productive and contributing member of a group — 4.24.
- They felt good about how the group helped each other and shared information — 4.5.
- They felt that the information covered in class was of real, practical value to them — 4.59.
- They felt they had a voice in what took place in class — 4.41.
- They thought Dr. Lessard was organized and helpful — 4.83.
- They were comfortable asking Dr. Lessard questions — 4.7.

Workplace Partnership
Literacy Task lists

Baker Enterprises

A manufacturer of industrial dust collectors, specialty cores, and other customized sheet metal fabrications, Baker relies on skilled fabricators to cut, mold, weld and assemble metal structures built to spec.

Shop floor math duties include: reading blueprints; figuring dimensions and angles; performing metric conversions; understanding trig functions, particularly those involving sine, cosine, tangent, and the x-y coordinate system; applying concepts such as area and volumes; converting fractions to decimals and vice versa; using a scientific calculator; knowing basic number operations such as multiplication, division, addition and subtraction; and being able to set up the correct equation and derive the right answer out of a story problem structure.

Shop floor communications duties include: listening; problem solving; independent decision making; working in a team environment; memo writing; compiling accident or incident reports; writing evaluations; talking on the phone to customers; making bids; and communicating information between shifts.

Shop floor reading duties include: blueprints; work orders; memos; training manuals; safety material; union contracts; and union and Besser company newsletters.

Fletcher Paper

A specialty paper manufacturer, Fletcher Paper is in the middle of a process focused on empowering workers to become more active problem-solvers and decision-makers. Company management places a high priority on training in these areas.

Shop floor math duties include: calculating volumes and areas of cylinders; using scientific calculators; figuring proportions and densities of liquid compounds and batch mixtures; converting pounds to kilograms, tons to kilotons, inches to centimeters, and feet to meters; understanding

basic principles of dimensional analysis and flow rates; and becoming familiar with the mathematical concepts underlying ISO 9000.

Shop floor communications duties include: listening; practicing the team concept; working productively in safety committees and quality circles; contributing data and copy to the daily company newsletter; writing accident or incident reports; writing memos; objective problem solving and effective decision making; being aware of gender issues in the workplace; and adjusting to grade changes.

Shop floor reading tasks include: reading memos; reading the company newsletter; reading manuals related to safety, maintenance, computers and training; understanding the union contract; reading work orders; processing written material related to scheduling and shipping of product; and understanding terminology related to ISO 9000.

Tawas Plating and Powder Company

Working primarily for the automotive industry, Tawas Plating hardens parts in heat treating then coats them with either zinc or nickel, or powder coats plastic housing components through a fine mist application.

Shop floor math duties include: basic arithmetic required to count and rack parts; understanding proportions, batch compounds, chemical properties, and practical knowledge of the effect of temperature on adhesive capacity of certain acids to metallic surfaces; flow rates as related to waste water treatment and the movement of parts through the plating or powder coating process; and basic inventory control.

Shop floor communications duties include: monitoring communication flow charts; participating in quality circles; writing employee-devised progress reports; sustaining participative employee-management program; documenting incident reports; and adjusting to changes in manufacturing schedules.

Shop floor reading tasks include: processing written work orders; comprehending safety related material; understanding memos, supervisor evaluations, labor contracts, and training material.

Omni Metalcraft

A specialty manufacturer of customized conveyor systems for industrial application, Omni Metalcraft is comprised of a number of job shops which each perform one step in the manufacturing process.

Shop floor math duties include: basic math functions as applied to measuring and fabricating lengths of steel; areas and volumes; right angle trig functions; using scientific calculators; metric conversions; fractions and decimals; and time management.

Shop floor communications duties include: conflict resolution; communicating between shops; communicating between shifts; communicating with engineering and sales; listening; problem-solving; decision making; writing incident or accident reports.

Shop floor reading duties include: work orders; scheduling; safety material; training material; reference material related to company rules and regulations.

Besser Company

The world's leading manufacturer of concrete blockmaking equipment, Besser Company is a modernized heat treating and manufacturing facility in which many operations are performed by NC or CNC machines.

Shop floor math functions include: understanding basic math functions; using right angle trig; calculating speeds and feeds; using the the scientific calculator; performing metric conversions; converting decimals to fractions; figuring angles off blueprints; setting up NC or CNC machines to properly machine a part; keeping track of production and time spent per part.

Shop floor communications functions include: communicating between shifts, both verbal and written information; communicating training information to new hires; communicating verbally with foremen and team leaders; conveying information to supervisors so accident or incident reports can be written; contributing to company newsletter; participating in union activities; learning computer and language (Russian) skills; memo writing.

Shop floor reading duties include: memos from engineering; memos from supervision; safety material; machinists' reference manual; reference material on NC or CNC programming; scheduling; work orders; organization and information management; the union contract; company policies; and the company newsletter.



ACC WORKPLACE PARTNERSHIP READING CLASSES

Reading improvement is vital in the changing workplace. It is a skill, when developed, that builds personal and workplace confidence. Alpena Community College, through the Workplace Partnership Project, is offering several classes in reading at this time. We also customize or design a specific reading class to meet current business needs. Current offerings include the following:

Reading Improvement A: The focus of this course is to build a student's personal efficiency in comprehension and reading strategies for business documents: letters, charts, applications, memos, forms and formal reports of the workplace. Students will become familiar with techniques to understand and digest the general meaning of the entire document as well as reading for particular details. Vocabulary strategies as they pertain to individual needs will be introduced. The course may include some computer assisted instruction, readings from periodicals and journals.

Reading Improvement B: Reading with greater speed and accuracy in the information age will be emphasized. Organizational and comprehension strategies of worksite reading tasks will be introduced and practiced. Skimming and scanning techniques will be introduced. A variety of reading materials will be used. Use of a dictionary, thesaurus, and other pertinent reference materials will be reviewed as workplace resources.

CNC Reading: Computer Numerically Controlled Machine Reading is a specific reading application course developed for Besser Company. CNC manuals, CNC codes and CNC textbooks are the only materials used for instruction. Through the exploration of CNC theoretical concepts and specific job applications students develop the necessary vocabulary and information processing skills to enter the CNC world. The course does not teach CNC operation but rather the concepts and reading skills forming a foundation for the field.

Reading and Information Management: This course is designed to help you create order out of your daily deluge of information processing as well as increase your personal reading satisfaction and effectiveness. Students explore an understanding of their personal learning style and specific organizational techniques. Reading strategies are strengthened through specific computer exercises limiting regression and related poor reading habits. Vocabulary development strategies are addressed on an individual basis.



ACC WORKPLACE PARTNERSHIP *MATH CLASSES*

GENERAL MATH

Calculator Usage
Area & Volume
Formulas
Unit Conversion
Pythagorean Theorem

WORKPLACE TRIGONOMETRY

Right Angle Trig
Surface Area
Cross-Sectional Area
(Flow Ratio)
Computer Labs
Oblique Angle Trig

WORKPLACE ALGEBRA APPLICATIONS

Algebra
Geometric Drawing
Computer Applications
Blueprints

ACC WORKPLACE PARTNERSHIP



WORKPLACE COMMUNICATIONS

At the present time, Alpena Community College, through the Workplace Partnership Project, is prepared to offer several classes in the area of communications. We can offer any of the courses outlined below, or we can customize/design a class to meet the specific needs of your business.

Workplace Grammar and Usage: a class consisting of grammatical and construction problems related to the work setting. The goal of this class is to help students understand and create more effective documents in the workplace faster and with more confidence.

Business Writing: a class designed for those students who do a significant amount of writing on the job. Students work with accepted memo, letter, etc. styles, as well as workplace-specific documents unique to their job. Content is adjusted to meet the needs of the individual students and the particular workplace situation.

Basic Communications: helps make students more effective senders and receivers of information. It is centered on helping to remove the barriers to the effective expression and reception of messages, in person, over the telephone, or in writing. Particular emphasis is placed on listening, one of the most neglected communication skills.

Interpersonal Communications: explores ways to improve students' communication with co-workers and supervisors. Students will study the flow of communication in the workplace, review and interpret verbal and nonverbal messages, and practice assertive communication to solve interpersonal communication problems.

Group Dynamics: develops work teams for our changing and challenging workforce. Students will observe and analyze group interaction, study and use group processes to achieve consensus or compromise, and function in groups through the use of leadership and group participation skills.

Problem-Solving and Decision-Making: uses the collaborative, process approach to problem-solving. Students use workplace-specific problems or more generic scenarios as models for the problem-solving process. The goal is to attack problems at their source and develop effective ways to put solutions in place.

Critical Thinking: deals with the complexity of issues as well as the different perspectives to be considered. The goal is to help establish those sound, systematic procedures needed in becoming more completely informed on subjects, and reaching solid conclusions.

Workplace Leadership Skills: deals with those planning and communication skills important to developing an effective leadership style that fits both the individual and the work environment. This course is designed to meet the needs of crew leaders, foremen, supervisors and managers who want to improve their leadership skills.

Constructive Conflict Management: studies the common conflicts found in the typical work environment. The goal is to settle these constructively. The course helps find ways of resolving conflicts so that people are able to express and work through their differences without damaging each other or hampering productivity.

Gender in the Workplace: covers the special problems which can arise as men and women increasingly co-mingle in the modern workplace. The course focuses on the needs, contributions and challenges each gender brings to the workplace, and debunks many of the myths which have caused misunderstandings.

Customer Service: a course designed to assess how well your organization currently meets customer needs. Students will study ways to solve customer grievances productively and how to use team strategies which will promote customer loyalty. This class is for those who traditionally deal with the public and want to improve their communication skills.

Your Choice: the WPP communication staff will develop a course to address the individual communication needs of your particular workplace.

(1) Meeting the Grant Objectives

This project had four specific goals. They were:

- (a) To refine and develop a replicable system of assessment and evaluation that will enable the Alpena instructional team to meet the individual learning needs of 250 project participants.
- (b) To design workplace specific instructional plans and materials based on the characteristics and existing resources of each work site.
- (c) To establish a highly interactive workplace partnership sensitive to the challenges of the changing workplace.
- (d) To implement a quarterly evaluation plan under the guidance of the Penn State Institute for the Study of Adult Literacy.

The Alpena Community College Workplace Partnership Project addressed the criteria established by each of these four goals. Following is a list of project accomplishments.

- (a) Project team delivered individualized, functional contextualized instruction to 248 adult learners.
- (b) Project team developed six new workplace classes based on the characteristics and resources of each worksite.
- (c) Project team developed a monthly newsletter, called *The Work Place*, which was distributed to all stakeholders in the project.
- (d) Project team quantified learning gains and productivity improvement based on test scores, anchored ratings, and company productivity data.
- (e) Project team disseminated research and presented findings on local, state, and national levels.
- (f) Project continuity has been maintained and developed with existing partners while new partnerships are being developed in National Workplace Literacy project beginning 10/1/94. Active involvement of management, labor and workers in assessment and evaluation will continue to be part of the new project.

2. Schedule of Accomplishments

Slippage occurred in two primary areas: (1) institutionalization of portfolio assessment; and (2) laptop computer usage in all workplace classes.

The effort to standardize portfolio assessment in all workplace classes met with mixed results, I believe, due to four main reasons:

- (1) Many workplace learners in our project are shop floor factory workers who don't write much, are not comfortable writing about their feelings, associate written documentation almost exclusively with negative feedback (i.e. accident reports, safety violations, disciplinary write-ups by supervisors), and believe that revealing their opinions or learning deficiencies in writing is risky because management could use this material against them.
- (2) If engaging the learner in his/her own self-assessment is a primary goal of compiling portfolios in the workplace, then it stands to reason that the classroom ought to be arranged according to a learner-driven agenda in which the worker is an active participant in all decisions that impact the learning process. This being the case, workers should have the option of determining how they want to spend their classtime, and if they determine that portfolios do not suit their individual learning plans, as many do, then instructors are in the position of mandating them, which defeats the purpose of the learner-driven classroom.
- (3) There is no built-in incentive for workers to maintain portfolios. The workers we serve are already employed, so they do not see the need to keep portfolios for hiring purposes. The businesses we serve have not shown an inclination to favor portfolios over more traditional factors such as technical schooling or work experience when bringing on new hires. Promotions are internal company matters, more dependent on performance ratings in the personnel file than the content in a portfolio. Our experience has been that the main proponents of keeping their work in a portfolio are math students, because they like to refer to their class notes when they're back on the shop floor to help them solve job-related problems.

- (4) Time is short in workplace classes. Either the company is releasing them or they're there on their own time; either way, they are impatient to have their needs met. For the most part, they did not want to devote valuable classtime to assessing how well they'd processed each chunk of instruction. They did not perceive portfolios as organic representations of an ongoing learning process, or something to be kept and added to as new competencies were mastered. Rather, they saw the creation of portfolios amounting to little more than excessive paperwork in support of academic theory, and what they wanted to do, in most cases, was to skip the portfolio and get on to new material.

We based our work in standardizing portfolio development on the **Michigan Employability Skills Portfolio**, which is a series of competencies Michigan employers have identified as critical for current and future employees to master. The skills fall into three main categories: academic skills; personal management skills; and teamwork skills. Within each category, separate skills are targetted, such as "Can use math to solve problems" under academic skills; or "Can work without supervision" under personal management skills, or "Can actively participate in a group" under teamwork skills. Our thinking in adopting this list of competencies as the basis for portfolio development stemmed, in part, from discussions with the State Literacy Resource Center, which is actively looking for School-to-Work linkages. Under Section 104 of the Public School Act, developing student portfolios is a requirement; failure to do so risks forfeiting state aid. The SLRC worked with us over interactive video and by phone and mail to outline a portfolio development plan, then we came together as a team to identify the competencies we thought might apply across businesses and content areas.

The clearest application of the model we developed is included as **Portfolio Sample #1**, taken from a series of general math classes developed for Omni Metalcraft, a custom manufacturer of industrial conveyor systems. The assessment checklist demonstrates student self-assessment on a number of the items selected from the Employability Skills Checklist, and the enclosed set demonstrates that the learner believed he had improved significantly in several of the targeted areas as the class progressed. The TABE and criterion-referenced tests, administered pre and post, quantified learning gains.

Slippage in our use of laptop computers was due to three main factors: (1) a demand for classes, such as problem-solving, in which it was difficult to find a place for computer-assisted instruction; (2) a lack of software knowledge and computer-assisted teaching experience on our part; and (3) a fear of using computers out-of-compliance with grant guidelines.

A major obstacle to introducing computers into the classroom was the restriction against teaching computers as a separate literacy skill. The business partners, as well as the workers in class, found the distinction between training and education to be frustrating and arbitrary. They felt that they'd been given the resources to attain a needed educational objective, but were being told that they couldn't use the resources in such a way that attainment of the objective was possible. Working this issue through to a productive conclusion took time, because it was as much a learning process for the business partners as it was for us. A write-up of an algebra class developed around spreadsheets and an existing company resource is an example of this learning process.

A Math Class Takes Shape - With Computers

A math class involving the use of computers was recently developed and taught at Fletcher Paper Company. This new class represents an interesting example of what is becoming typical workplace education. Initially, the class was made available to the workers as a course offering in general mathematics. When workers, soon to be students, arrived at a pre-class meeting, the first question asked of them was, "Why do you want to learn mathematics?" One of the students took me by surprise when she replied that she wanted to be able to create formulas on a computer spreadsheet. Other students agreed and a new type of math class utilizing the computer program Excel (Microsoft Excel for Windows) was born. Creating this type of course was soon to become a challenge for both the students and the instructor.

The students helped design the entire course on a week by week basis, including the choice of the software Excel. Choosing the Excel program was easy since it was being implemented on a company wide basis. The employees realized that they would soon need to be able to interact with this program. And besides, students liked being able to apply the math skill they were learning directly to their

job. These workers who attended class represented almost every level of company operation, from the floor to the office. All of the students indicated that being able to apply their new math skills on the computer spreadsheet was the best part of the class.

Working out the daily lectures and assignments for each class session became easier as time passed. The first topic covered was interpreting and creating x-y graphs. Although graphs are very common at Fletcher Paper, not all students could extract information from them. Slope of a line and other aspects of lines were the most interesting to students. Most of the class sessions were devoted to the use of formulas. The concept that variables could be assigned to columns or cells on the computer really helped students grasp the use of algebra as tool. For example, students were given a formula and a set of data and asked to have the spreadsheet perform the calculation. They learned the value of using formulas when they discovered that repeated calculations using this same formula would take far less time than starting over again. The computer helped students comprehend how they could use formulas to easily handle calculations. Many students stated that figuring out how to enter formulas on an Excel spreadsheet made them feel more confident about math and problem solving.

Integrating education and technology together is the only way to meet all student needs. Mature students are always asking themselves. "How can I apply this to my everyday life?" By incorporation of Excel into the math class, students were able to see how knowledge of the subject of mathematics could be used on the job and at home. Computers play a part in almost all modern workplace settings. Therefore, they must become integrated as a part of basic workplace literacy.

by Ken Sumerix
Math Instructor

MICHIGAN EMPLOYABILITY SKILLS PORTFOLIO

Skills Michigan employers want now and for the future

ACADEMIC SKILLS

The skills that help prepare you for future training and education. They include communicating, planning, understanding, and problem solving.

- ☐ Read and understand written materials
- ☐ Understand charts and graphs
- ☐ Understand basic math
- ☐ Use math to solve problems
- ☐ Use research/library skills
- ☐ Use tools and equipment
- ☐ Speak in the language in which business is conducted
- ☐ Write in the language in which business is conducted
- ☐ Use scientific method to solve problems
- ☐ Use specialized knowledge to get a job done

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PERSONAL MANAGEMENT SKILLS

The skills that help you develop responsibility and dependability. They include setting and accomplishing goals, doing your best, making decisions, acting honestly and exercising self control.

- ☐ Attend school/work daily and on time
- ☐ Meet school/work deadlines
- ☐ Develop career plans
- ☐ Know personal strengths and weaknesses
- ☐ Demonstrate self control
- ☐ Pay attention to details
- ☐ Follow written instructions and directions
- ☐ Follow verbal instructions and directions
- ☐ Work without supervision
- ☐ Learn new skills
- ☐ Identify and suggest new ways to get the job done
- ☐ Demonstrate personal values at school and work

TEAMWORK SKILLS

The skills that help develop your ability to work cooperatively with a group. They include organizing, planning, listening, sharing, flexibility and leadership.

- ☐ Actively participate in a group
- ☐ Follow the group's rules and values
- ☐ Listen to other group members
- ☐ Express ideas to other group members
- ☐ Be sensitive to the group members' ideas and views
- ☐ Be willing to compromise if necessary to best accomplish the goal
- ☐ Be a leader or follower to best accomplish the goal
- ☐ Work in changing settings and with different people

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Portfolio Sample #1

**Workplace General Math Improvement
Omni Metalcraft - Bay Manufacturing**

(includes)

Individual Education Plan

- (1) Job description
- (2) Student strengths
- (3) Assessment scores

TABE (pre and post)
Criterion-referenced
(pre and post)

- (4) Student goals
- (5) Personal and professional
application
- (6) Learning styles assessment
- (7) Personal comment
- (8) Student signature

Employability Skills Assessment Checklist

Completed by the student in the beginning of the course and again near the end, this checklist presents an opportunity for self-assessment in the areas targeted by the Employability Skills profile.

Attendance

Criterion-Referenced Test

- (1) Administered pre and post
- (2) Developed by the instructor
- (3) Graded by the Instructor
- (4) Measures material covered in class

Complete Set of Class Notes

Complete Set of Homework Problems

INDIVIDUAL EDUCATION PLAN
WORKPLACE PARTNERSHIP PROJECT

Name: MATT KRAWCEAK
Course: WORKPLACE MATH
Date: JAN. 26, 1994
Teacher: ROB ABRAM

1. Brief description by student of his/her job.
MOTIVATING EMPLOYEE PRODUCTION, SOLVING CONFLICTS
NEGOTIATING COMPENSATION & BENEFITS
2. Student strengths:
 - a. INTERPERSONAL COMMUNICATIONS.
 - b. TIME MANAGEMENT
 - c. JOB SCHEDULING
3. Assessment scores:
Formal (test name): TABE Pre: 33.3% Post: 53.3% Percent Improved: 20%
Informal (IRI description): Pre: 68.2% Post: 100% Percent Improved: 31.8%
4. Student goals for the course of study: ~~{List courses and associated goals}~~
 - a. LEARN ALL FUNCTION KEYS ON CALCULATOR.
 - b. KNOW HOW TO DO FRACTION CONVERSIONS TO DECIMALS
 - c. KNOW BASIC TRIG.
 - d.
5. How do you hope the course will help you at work?
Personally? IT WILL OPEN UP ANOTHER OPPORTUNITY FOR FURTHER ADVANCEMENT IN THE COMPANY.
PERSONALLY IT WILL ENABLE ME TO HELP MY CHILDREN DO THEIR HOMEWORK WHICH WILL RESULT IN MORE FAMILY TIME TOGETHER WILL RESULT IN A HIGHER SELF-CONFIDENT FAMILY.
6. How she/he hopes to achieve goals of study. Please mention materials, topics of study you'd like to pursue, etc.
 - a. BY GOING OVER SAMPLE PROBLEMS.
 - b. DOING HOMEWORK
 - c. HANDS ON EXPERIENCE WITH CALCULATOR.
7. Other observations (student or teacher):

I understand this plan and agree to cooperate within the project to achieve my goals

Student: Matt Krawceak

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Teacher: _____

Workplace Partnership Project
Omni Metalcraft
Assessment Checklist

Name: MATT KRAWCZAK

Date: 2-10-94

Class: MATH

Please rate your progress toward the points on the checklist below according to the following scale:

- 1 - Not making progress, goals are not being met
- 2 - Some progress, but not meeting expectations
- ③ - Meeting expectations, personal goals satisfied
- 4 - Exceeding expectations, making considerable progress

Academic Skills

Calculator usage - 4
Areas and volumes - 3
Formulas - 3
Unit conversions - 2
Pythagorean theorem - 3
Use of scientific method to solve problems - 3
Use of specialized knowledge to get a job done - 3

Teamwork Skills

Constructively participate in a group - 3
Work in changing settings and with different people - 3

Personal Management Skills

Meet school/work deadlines - 3
Know and communicate personal strengths and weaknesses - 3
Identify, suggest, and apply new ways to get jobs done - 3

Comments:

THIS CLASS IS HELPING ME IN SEVERAL AREAS AT
WORK AND HOME. I ENJOY IT AND I AM LEARNING
EASIER WAYS TO SOLVE PROBLEMS.

Workplace Partnership Project
Omni Metalcraft
Assessment Checklist

Name: MATT KRAWCZAK

Date: 2-22-94

Class: WORKPLACE MATH

Please rate your progress toward the points on the checklist below according to the following scale:

- 1 - Not making progress, goals are not being met
- 2 - Some progress, but not meeting expectations
- 3 - Meeting expectations, personal goals satisfied
- 4 - Exceeding expectations, making considerable progress

Academic Skills

- Calculator usage - 4
- Areas and volumes - 3
- Formulas - 3
- Unit conversions - 4
- Pythagorean theorem - 4
- Use of scientific method to solve problems - 3
- Use of specialized knowledge to get a job done - 3

Teamwork Skills

- Constructively participate in a group - 3
- Work in changing settings and with different people - 3

Personal Management Skills

- Meet school/work deadlines - 4
- Know and communicate personal strengths and weaknesses - 4
- Identify, suggest, and apply new ways to get jobs done - 3-4

Comments: I HAVE ENJOYED THIS CLASS. BECAUSE I HAVE BEEN OUT OF SCHOOL FOR SO LONG, I FORGOT THESE THINGS BUT NOW I HAVE RELEARNED THEM.

THIS CLASS HAS ALREADY HELPED ME IN SEVERAL AREAS AT WORK. CLASS COULD HAVE BEEN A LONGER COURSE SO WE COULD GET INTO EVEN MORE MATH PROBLEMS. 80

**Omni Metalcraft Corp.
Attendance**

Name	Date
Bob Finch	1-25-94
David Lipkowsky	1-25-94
~~David Lipkowsky~~	1-25-94
Bill BURRONE	1-25-94
ALAN BEITLER	1-25-94
Kyle Brunning	1-25-94
Jon Rickle	1-25-94
MAN KRAWCZAK	1-25-94
Eric Hopp	1-25-94
Tom Stander	1-25-94
Jon Rickle	2-2-94
David Lipkowsky	2-1-94
Bob Finch	2-1-94
Kyle Brunning	2-1-94
Bill BURRONE	2-1-94
ALAN BEITLER	2-1-94
Tom Stander	2-1-94
Matt Krawczyk	2-1-94
Eric Hopp	2-1-94
Mike Frasz	2-1-94
Jon Rickle	2-3-94
David Lipkowsky	2-3-94
Kyle Brunning	2-3-94
Eric Hopp	2-3-94
ALAN BEITLER	2-3-94
Bill BURRONE	2-3-94
Tom Stander	2-3-94
Matt Krawczyk	2-3-94
Mike Frasz	2-3-94

3. Project Outcomes:

Two hundred forty eight (248) learners completed workplace classes during this 18-month project. Seventy-one (71) were employees of Tawas Plating and Powder Coating. Fifty-nine (59) came from Fletcher Paper Company. Forty-four (44) worked for Baker Enterprises, a sheet metal fabricator. Sixty-one (61) were Omni Metalcraft employees, makers of industrial conveyor systems. Thirteen (13) worked for the Besser Company, the world-leading manufacturer of concrete blockmaking equipment.

Below are sample outcomes from each company:

Omni Metalcraft (TABE) Workplace Writing Improvement

INDIVIDUAL STUDENT DATA

Group # I

Student #	Ent.	Exit	Gain
1	13	15	2 = 13.3%
2	11	13	2 = 13.3%
3	10	10	no gain
4	11	15	4 = 26.6%
5	13	15	2 = 13.3%
6	5	employment terminated	
7	11	15	4 = 26.6%
8	11	15	4 = 26.6%
9	11	13	2 = 13.3%
10	11	15	4 = 26.6%

Group # II

1	13	15	2 = 13.3%
2	12	15	3 = 20%
3	10	14	4 = 26.6%
4	8	11	3 = 20%
5	13	15	2 = 13.3%
6	10	12	2 = 13.3%
7	12	14	2 = 13.3%
8	13	14	1 = 6.6%

**Tawas Plating
Workplace Communications**

1. In what way has the course helped you on-the-job?

Understanding how to explain things.

Open my mind to others on how they are trying to get across.

It helped me understand the way the other guys feel about their jobs. What's on their minds. And I heard the good ideas they have about their job.

How to deal with other people without getting mad..

I have put an extra effort into being a better listener

The class has helped in the way I have been communicating with my fellow workers.

To be a better listener. Working closer with other people.

Opened my eyes to a better way of seeing things!
Better trust, better control of things that are going on in my area!

I learned to listen because everyone has an opinion and it may help what you're doing (2 heads is better than one)

It helped me to have a more open mind on other people's ideas and to try to work more as a team.

Learned how to communicate better.

It will help reduce wasted time, improve production, help relationship between each other.

To get everyone to work together.

The course has improved cooperation between the members of the group. Attitudes have become more positive.

2. In what way has the course helped you on a personal basis?

I personally am trying to use this in a different job that I am looking into.

Made me aware of others thoughts and feelings.

I would be less apt to get upset over a situation that I did not agree with. I would try to better realize the other guy's situation.

Eye opening in seeing as yourself.

I have learned that everybody is different and all of us are individuals. I have become more relaxed participating with the group.

It has made me realize how much of a poor communicator I have been in the past. It has given me a new goal to achieve for myself.

I need to work and help others.

I try not to be so aggressive!

I learned to listen because everyone has an opinion and it may help what you're doing.

That you may have to listen to people and that what you hear is not necessarily what they mean.

If the "communication chain" was devised works, I will feel less stress.

Reduce stress levels.

My attitude has improved and I feel more positive about the direction the plan is headed.

3. How could we improve the class? What other kinds of content?

Take guys from this class to get things started. Get feelings out in the open.

Work with it after 4 weeks is over.

The class could be held for six or eight weeks instead of just four. You might get even more out of it. (just a thought?)

Getting everybody involved in what's going on.

Have a couple of classes structured toward actual problem solving. How to ask questions-hitch-hiking on others ideas.

The class could be improved by maybe making it a little longer. The time has always passed fast.

Problem solving.

Keep an open mind on everything that is brought up in class!

Make it more than just 4 weeks.

Maybe find a way to break the ice.

Rich did an excellent job. The class would be hard to improve. We covered the base of the major problems affecting this plant.

4. Did we as an instructional team clearly communicate what we expected of the students in the course? What could we do to improve that?

Yes, you took out Q as to what we felt was most important and kept us going on it.

Liked it the way it was.

I thought the class explained well what its purpose was

Let everyone take a turn in saying what's on their mind

Yes - you incorporated visuals and examples I thought was good.

Communication between instruction and class was very good.

Yes, you did a fine job.

Yes

Yes

Very well

Yes

1. No 2. A little history of what is happening from both sides of the story.

Yes. It would be difficult to improve on the way Rich conducted these classes/meetings.

5. What are some ways that we could use better or more appropriate materials?

Just keep the guys involved help them to express their feelings, by use of computers or whatever way will help. Everyone is different.

Use supervision & worker together to get problem in the open.

More techniques on learning how well you explain something or pay attention.

Possibly an overhead projector if necessary.

Give the instructor tour of the plant, and explain the function of each area.

Video tapes, examples.

None

6. How much does the company's attitude toward the class factor into your learning?

We'll have to wait and see how it goes but if they stay involved it can differently go along way.

I was very involved with the class because the company was really wanting something good to come out of it.

It's going to take time to get everyone working together.

Uncertain - I don't want this to fizzle out - like other programs have.

A great deal if the company didn't think it would not help they would not have let us take the class.

Very little, we need to learn with or without the company.

7. Other comments/suggestions.

Thank you for giving all of us the opportunity to let out a lot of frustrations that have been built up for a long time.

Keep with company problems and let worker be a part of the company.

Don is a very good instructor and communicator, he makes you feel at ease with him and other people.

Keep it going.

Fine job, accomplished a lot.

4. Dissemination Activities:

We instituted a number of dissemination strategies in order to fulfill the criteria of a true national demonstration project.

Project Publications:

- The project team created and publishes a monthly newsletter entitled *The Work Place*, which is sent to all project stakeholders, past and present.
- Project director completed a research manual on setting up and maintaining a rural workplace literacy project, which is available through ERIC, document ED356345.
- Dr. Richard Lessard, lead communications instructor, published *Integrating Learner-Driven and Organization-Driven Agendas: A Workplace Study*, available through ERIC, document ED 367387.
- Project director published *Evaluating Workplace Education Programs* and *Communication and Collaboration: The Role of the Teacher in the Workplace Classroom*, both available through ERIC, documents ED365367 and ED 365366 respectively.

Presentations

Project director presented at (1) the Community College Consortium's 5th annual Summer Institute in Madison, Wisconsin; at (2) the Michigan Department of Education's Work-Based Technology conference in Flint, Michigan; and at (3) the State Literacy Resource Center's annual conferences in '93 and '94.

Project team has attended 14 professional conferences related to staff development, technology and dissemination.

Television, Video, and Teleconferencing

In 1992, we were selected to participate in two national Public Broadcasting Service workplace literacy documentaries. Narrated by Edwin Newman, this broadcast became part of materials published as "Project Lifelong Learning" by WPSX. Recently, Tony Sarmiento of the AFL-CIO Human Resources Institute, included footage of our project in a WKET satellite videotape on workplace learning.

The project director has done five television interviews on workplace education on WBKB Channel 11, the local CBS affiliate.

The project director has spoken before local business, labor, education and civic organizations on the topic of workforce education.

The project team has conducted workshops on portfolio assessment and participated in focus groups on teacher training strategies via two-way interactive video.

5. Evaluation Activities:

The following methods were used to measure student and company outcomes, both formatively and summatively.

1. Pre/post assessment of workers using TABE.
2. Pre/post assessment using criterion-referenced test.
3. Portfolio assessment.
4. IEPs.
5. On-going Project Advisory Teams.
6. On-going Project Oversight Committee meetings
7. Pre/post attitude surveys.
8. Company productivity data (where available).
9. Learner productivity data (where available).
10. Quarterly reports to DoE and outside evaluator.
11. Final report.

6. Changes in Key Personnel:

Don MacMaster, lead communications instructor in ACC's first National Workplace Literacy Program grant (April '91 - December '92), was hired as Project Director in July '93. Dr. Richard Lessard was hired as Director of Workplace Communications in July '93. Janet Fulton, lead reading instructor, Kendall Sumerix, lead math instructor, and Ann Schultz, project secretary, carried over from the first workplace grant through the project just completed. Rob Abram, part-time math instructor, was hired in October '93. Frank Przykucki was hired on a part-time basis to assist with the publication of the project newsletter.

TAWAS PLATING COMPANY

&

TAWAS POWDER COATING

October 10, 1993

Dr. Richard Lessard
Alpena Community College
666 Johnson Street
Alpena, MI 49707-1493

Dear Rich:

I want to say thank you for all your hard work at our facility. It is hard to believe we put over 35 people through your training sessions. I know it has been a wonderful experience for all of us and I hope it has been beneficial to you as well. It took a special instructor to make these classes work at our facility. From what I have seen, I would say they did a lot more than just work, they were a big success!

I know we are a better work place now than we were 5 months ago. What a great feeling it is to be able to honestly say that. Thank you Rich, you made it possible. I hope this is not the end of our relationship with ACC. I will be talking with Don soon to see if it is possible to continue with any other type of training.

Please feel free to stop by and see us when you are in the area, we would all like to see your smiling face again.

Best Regards,

A handwritten signature in dark ink, appearing to be 'K. J. M.' or similar, written in a cursive style.

**Fletcher Paper Company
Workplace Algebra Applications**

FLETCHER 94' PRE/POST TEST SCORES

STUDENT'S NAME	PRE TAFE	POST TAFE	TAFE % Improved	PRE Sumerix	POST Sumerix	Sumerix % Improved
	11	11	0	35	40	14%
	14	14	0	70	90	29%
	12	11	-8%	40	25	-37%
	5	5	0	35	55	57%
	7	11	57%	20	70	250%
	13	13	0	45	50	11%

**Baker Enterprises
Workplace Math - Level 2**

MATH 080 - BAKER

SUMERIX

JANUARY 7, 1994

NAME	Pre-test Sumerix	Post-test Sumerix	% Improved	Pre-test TAFE	Post-test TAFE	% Improved
	45%	83%	84%	13	15	15%
	15%	93%	520%	12	13	8%
	31%	70%	125%	12	12	0%
	37%	81%	118%	15	14	(7%)
	31%	73%	135%	8	11	38%
	65%	N/A	N/A	15	N/A	N/A
	40%	90%	125%	14	15	7%
	24%	72%	200%	7	7	0%
	26%	100%	285%	15	15	0%
	55%	88%	60%	11	13	18%

**Besser Company
Reading and Information Management**

Student Pre/Post Scores - 8-14-93 through 10-20-93
Janet Fulton, Instructor

Ken Rhodes:			
TABE	09-14-93	Vocab. 11/15 Comp. 11/15	
TABE	10-20-93	Vocab. 13/15 Comp. 13/15	
BookMaster	09-15-93	WPM 83 Comp. 69%	
BookMaster	10-20-93	WPM 125 Comp. 69%	
Kathy Dapprich:			
TABE	09-14-93	Vocab. 15/15 Comp. 15/15	
TABE	12-20-93	Vocab. 15/15 Comp. 15/15	
BookMaster	09-15-93	WPM 115 Comp. 95%	
BookMaster	10-20-93	WMP 225 Comp. 100%	
Steve Kinsel:			
TABE	09-14-93	Vocab. 12/15 Comp. 15/15	
TABE	10-20-93	Vocab. 12/15 Comp. 13/15	
BookMaster	09-15-93	WMP 127 Comp. 100%	
BookMaster	10-20-93	WPM 281 Comp. 75%	

Evaluation Report:

National Workplace Literacy Program

Alpena Community College (Awardee)

December 1994

Eunice N. Askov

Professor of Education

Director, Institute for the Study of Adult Literacy

The Pennsylvania State University

204 Calder Way, Suite 209

University Park, PA 16801-4756

Building on a previous National Workplace Literacy Program (NWLP) grant to Alpena Community College (ACC) that ended on January 31, 1993, this project continued previously established relationships with local industries and added new sites to total six business partners plus the Thunder Bay Labor Council. These are described in ACC's final report.

Background Information

Located in a rural, sparsely populated, geographically isolated area, Alpena Community College (ACC) is the only institution of higher learning for 100 miles in any direction. Established in 1952, the college serves five counties that cover 3,000 square miles, an area roughly equivalent to the size of Delaware and Rhode Island combined. In spite of its relatively small size, ACC offers a full range of services. Like many other colleges belonging to the American Association of Community Colleges, one of the fastest growing service areas at ACC involves non-credit customized training and workplace literacy programs for area businesses and manufacturers responding to the competitive demands of the new global economy. Six years ago, ACC had no customized training or workplace literacy programs. Today, roughly 15 percent of unduplicated students attend customized classes held onsite at the workplace.

Seventy miles from the nearest freeway, Alpena is the largest city north of Saginaw on the east side of northern lower Michigan. With a population of 13,000, it serves as the center for commerce, education, health care, hospitality, and culture for the surrounding rural area. Though a resort setting during the summer and fall, Alpena is an industrial town with an organized workforce that is not immune to the persistently high unemployment and poverty levels and low educational attainment that characterize the entire region.

Project Description

While the project proposal listed 18 specific objectives for the 18-month period, the project had the following overall goals: 1) to refine and develop a replicable system of assessment and evaluation that will enable the Alpena instructional team to meet the individual learning needs of 250 project participants; 2) to design workplace specific instructional plans and materials based on

the characteristics and existing resources of each work site; 3) to establish a highly interactive workplace partnership sensitive to the challenges of the changing workplace; 4) to implement a quarterly evaluation plan under the guidance of the Penn State Institute for the Study of Adult Literacy.

The project accomplished these goals. The project proposed to serve 250 employees in six industrial sites using the functional context approach to instruction; this objective was met. While one of the businesses is international in scope, most could be classified as small businesses. In most of the sites employees attended class during work time; support services were not needed in terms of child care or transportation.

Evaluation Plan

The letter summarizing the initial evaluation visit in October 1993 is attached in Appendix A. Some discrepancies had occurred between what was proposed and the activities being undertaken perhaps due to the change in project directors. (The project director of the first NWLP project who wrote the proposal left ACC as the second project began.) Corrective actions resulted from that evaluation letter to remedy what had been discrepancies. The evaluator received an update on the project modifications during her August 1994 visit.

The project staff undertook considerable efforts to do their own formative evaluation by surveying students about the long-term impact of the program on their attitudes toward lifelong learning, community involvement, family, and job status. These data are summarized in the final report from the project.

During the final site visit in August, the evaluator interviewed the project director, instructors, students, industry trainers, and plant/division managers in most of the sites. The questionnaires in Appendix B provided the basis for interviews with program stakeholders. The project director was asked to review the questions in advance and modify them. He distributed them prior to the visits to give stakeholders opportunity to think about their responses. The interview responses were well thought out; some personnel had even made notes of points to be covered.

The evaluator was not taken to one industry during her visits; the only explanation was that the company was not as open to visitors as the other businesses. The evaluator did not meet with representatives from the Thunder Bay Labor Council although some of the workers who were interviewed are members.

One proposed industrial partner dropped out and another chose to participate only to a limited extent during the current project although that company was actively involved in the first project. (This may have been due to personnel changes in the industry. The company is again participating during the third project.)

Responses of Stakeholders

Stakeholders were unanimous in their support of the program. In fact, in every site the management and students expressed a desire to continue if the third NWLP grant would be awarded. If the third grant had not been awarded, it would be difficult for the small businesses to continue the program in spite of their satisfaction. However, some arrangements may have been worked out on a contractual basis.

Students

Regardless of job classification, seniority, age, race, or gender, students were overwhelmingly positive about the program. Some saw it as a help to advancement in the company, but most were motivated by the desire for self-improvement. They consistently mentioned the importance of their teacher, the individualized instruction and assistance, and the opportunity to use a computer in learning (when available). Most reported that they were able to use what they learned in class on the job and at home, and that they brought literacy-related problems from the job and home to class for instructional help.

One of the benefits to the program often cited was learning more about the company. They now understood the "big picture" and saw their role in a better perspective. They reported being able to use materials related to their jobs that previously they could not understand. They expressed gratitude to the company for being able to attend "school" during work time. They

reported that their supervisors and coworkers were supportive. While no one used the word *empowerment*, that seems to describe the feeling of the students interviewed.

Industry CEOs, Trainers, and Supervisors

All were unanimously positive about the program. Although some initial difficulties had been encountered in arranging work coverage for students and adjusting to the college "culture," they saw the benefits to the students. They felt that the grant period was too short to be able to quantify the results, but they saw evidence of enhanced morale and communication skills. In the plants which are organized into teams, management noted that students were able to participate in ways that they could not prior to classes. Better relations between management and union members were seen as a result of the communication and problem-solving classes in at least two locations.

College Project Director and Instructors

The NWLP project has opened up new opportunities for collaboration between the college and local industries. The college has offered other classes onsite as well as on campus as a result of this relationship. College staff have also developed job-specific curricula and classes for other industries following the NWLP model. All expressed that the strong industry support had been an essential part of the success of the program. Working with the students and watching their progress were mentioned most often as the highlight of the program.

Advisory councils within the companies helped communicate information about the program as well as advise on the implementation. An oversight committee consisting of representatives from the various companies and the Thunder Bay Labor Council facilitates communication across the industries and with the college.

ACC staff perceived that the industries have benefited from the problem-solving and communication skills instruction which has led to a more trainable workforce—one that can also show initiative and work together in teamwork. Workers seem more confident and able to take responsibility. The workers seem "turned on" to learning; the more classes they take, the more they want.

Frustrations included the difficulty in demonstrating the gains that they see in the workers. Standardized tests are not relevant to the content of instruction. Quantification of gains is especially difficult in the communication and problem-solving classes while math was perceived to be easier to document with criterion-referenced assessments.

The staff also expressed that some companies expected a "quick fix." One or two companies expected workers to take classes on their own time. Those companies whose management shared the goals of the program with the college had the most successful programs, realizing that basic education is a long-term commitment that should be offered on work time because of the benefits to the company.

They also felt that the division between education and training is artificial when the functional context approach to instruction is used. The best training program would be one in which customized basic skills instruction is integrated with technical training to ensure relevance of instruction and application back to the job.

The staff felt that they are receiving good support from the college. Since most of them teach both in the workplace literacy program as well as in the regular college program for traditional community college students, the concepts of adult and work-based learning gained from the NWLP project are being incorporated into the regular college curriculum. ACC is therefore benefiting from the experiences of delivering instruction in the workplace.

The staff felt that they had a good team with solid leadership. Working together was considered to be strong point. They felt that the NWLP project was a real learning experience for them. Having no predetermined curriculum but responding to companies' and workers' needs in designing instruction has been an opportunity for personal growth.

Impact Data

The final report describes the results of the college's surveys of the self-perceived impact of the program. These appear to be positive.

Job-Specific Test Results

The math instructor developed job-specific criterion-referenced tests to assess learning. No statistical tests could be performed on these results, given that different tests were used in different workplaces depending on the company's needs. (These are reported in ACC's final report.) Clearly, the students showed gains in the basic skills assessed within the context of specific jobs.

Standardized Test Results

The TABE results are reported in the ACC final report. Not surprisingly, they do not reflect the gains that the instructors, students, and their supervisors have seen.

Portfolio Assessments

The proposal (written by the previous project director) had said that student progress would be demonstrated by portfolio assessment. While attempts were made to carry out this plan, most of the companies and workers did not see the value in creating portfolios.

The communications instructor created a portfolio for each class. In it he placed his lesson plans, self-evaluation of each lesson, observations of the students, and sample student work. The portfolios kept the project director informed about the instructor's activities and assisted in formative evaluation of the program.

Conclusions

During the initial site visit the evaluator should have offered training and group planning to address the evaluation efforts so that everyone understood and agreed upon what was being monitored. Instructors (except for the math instructor) needed help in developing job-specific or job-related, criterion-referenced tests to measure mastery of the basic skills taught. These assessments could have shown the gains that were perceived.

All the classes seemed to be open to students' needs and goals as well as meeting those of the industries. The instructors were highly regarded in all sites for their abilities to meet the students' needs, individualize the curriculum, and relate to industry personnel, policies, schedules, and so forth. Instructors expressed some difficulty in determining the lines between workplace literacy and training, wishing that the two efforts could be more closely integrated.

While most of the industries were unable to quantify the impact of the program in terms of productivity, quality, absenteeism and so forth, they are committed to its continuation within each industry site. One small industry, however, was able to track the impact of the program on its business output; the very impressive data are reported in ACC's final report.

Success Stories

Some of ACC's workplace literacy classes have been linked to company restructuring or labor-management relations efforts. For example, the workplace communications instructor was working with a company that is attempting to institute self-directed work teams in a small, self-contained coremaking process; as part of the NWLP grant, ACC was building teamwork skills while also teaching communication and problem-solving skills.

In another company workplace literacy classes on communication and problem-solving have become the vehicle for resolving tensions between management and a newly formed union. The instructor required as part of the class that the students as a group devise an improvement in the workplace which is then presented to the president of the company at the end of the course. The focus of the course then becomes the study of the pros and cons of the suggested improvement—in which problem solving skills are taught—and of effective ways to communicate the idea to the president. Several of these class projects have been adopted as part of the quality movement of the company. The classes, in which all employees have participated, are helping defuse bad labor-management relations inherited from a previous company president. The company is currently negotiating the creation of a video for orientation of new workers which came from a problem-solving class targeted to new hires.

As a result of the NWLP classes, workers want more classes. For the first time the NWLP classes are beginning to serve as "feeder" programs to ACC's degree programs as well as to other training. For example, the math instructor is using laptop computers in teaching job-specific math skills; this instruction will also serve as a bridge from the workers' current math instruction to further training in CAD.

Issues

Rurality. In rural areas trust is very important. People lack the anonymity that can be found in large urban areas. In Alpena, as in other rural areas, one has to deliver on one's promises because one is dealing with friends, neighbors, and associates. ACC, therefore, is especially concerned with its commitments to the businesses, industries, and unions in its service district. The sense of trust must be maintained. Therefore, quality is always an issue in order to keep good will toward the college. This sense of trust was apparent in the good working relations of the NWLP staff with its industrial partners.

Newsletter. The professional-looking monthly newsletter became a very effective communication tool with the industrial partners as well as with others outside the community. Student contributions also encouraged workers' participation in the newsletter. Other NWLP projects might use this vehicle as well.

Institutionalization. It is difficult to institutionalize externally funded programs because ACC lacks the resources to deliver workplace literacy services as do the small businesses that it serves. Yet the need is there. While the workplace literacy program has been relying on the NWLP funding which is now for a three-year period, the purpose of this funding is not program maintenance but demonstration and evaluation of effective workplace literacy practices. It is not intended to be used for long-term service delivery. Eventually, ACC and its industrial partners will have to face this reality.

Coordination. Research tells us that technical training and workplace literacy education are most effective if integrated. Education becomes more meaningful if applied directly in the context of the workplace or in support of technical training. However, the funding guidelines of the NWLP prevent integration of technical training with workplace literacy instruction. The workplace literacy program is to be separate; technical training during workplace literacy classes is strictly forbidden under grant guidelines.

Technology. As classes are opened up in more remote areas of the service district, including the former Wurtsmith Air Force Base which closed two years ago, technology for

distance education could be useful. At the moment ACC lacks a coordinated plan for using existing, albeit limited, resources in computers, e-mail, and interactive video. Instructors are commuting from Alpena to deliver instruction to satellite locations. Although computers were purchased with NWLP funding, the evaluator saw only limited use of them in instruction. She also did not see the use of customized software to meet the learning needs of the specific workplace and workers.

Customization. Training objectives were tied to company business objectives, and reflect company and employee needs. Workers and management were asked about their goals and needs for the workplace literacy program as part of the needs assessment process. While formal literacy task analyses did not appear to have been performed, the mutual needs were being met through a participatory approach. Instruction was being customized to the workplace, making it highly effective.

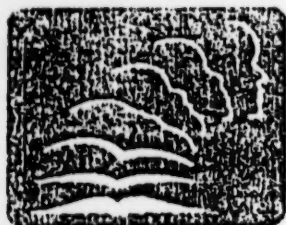
Formative evaluation. The project staff should be commended for their considerable efforts to do their own formative evaluation by surveying students about the long-term impact of the program on their attitudes toward lifelong learning, community involvement, family, or job status. These data were used to inform and modify the program. They are reported in ACC's final report.

Skilled staff. The staff demonstrated an understanding of adult learning, adult education principles, and workplace literacy instruction. Not only are they highly educated in their disciplines, but also they have internalized the goals of the program. The expertise of each staff person complemented that of the others. At least one of the staff members kept his own portfolio of the work of each class, including the lesson plans, responses of individual students, sample student papers, self-evaluation of the class activities, and so forth. The director of the workplace literacy and technical training programs comes from a non-educational background; however, he is effective in his leadership of the program by his empowerment of the other staff who report to him.

A Final Note

The strengths of this NWLP project are its effective partnerships, delivery of customized instruction, participatory approach to curriculum development, and strong staff. Its newsletter is a model to other projects. The self-analysis that occurred throughout the project, some of which in consultation with the external evaluator, was also evident in the final report. This evaluation report has attempted to highlight the strengths that were clearly evident during the site visits.

APPENDIX A



INSTITUTE FOR THE STUDY OF ADULT LITERACY

October 20, 1993

Don MacMaster
Alpena Community College
666 Johnson Street
Alpena, MI 49707

Dear Don:

Let me begin by thanking you for your wonderful hospitality during my recent visit (October 11-13) to Alpena. I really enjoyed the opportunity to meet your instructors, College personnel, and the CEOs at Baker Enterprises and Tawas Plating, and Human Resources director at Besser. I also enjoyed the breakfast with Tina and Rachel; good luck on upcoming events!

I have enclosed a draft of a letter that I need for you to ask Anne to type on your letterhead and send back to me. Penn State now requires a letter from a site where we might gather data, even interview data. Since I am assuming that you will want me to interview participants and stakeholders more thoroughly than I did, and do some sort of report, I need you to send me a letter of invitation which I can file with the consent form. Thanks.

Please look over the forms I gave you. You may also want to show them to the instructors and anyone else you choose. Feel free to modify them. (Since I didn't use them on this last visit, the date is irrelevant.) On my next visit I will want to be more thorough and will need to interview program stakeholders more systematically. Please return the revised forms along with your letter to me so that I can file them with the Human Subjects Protection office. I am assuming that you will continue to gather attitude data and analyze impact data for students and the companies.

As you know, we spent a lot of time reviewing the ACC proposal that represents your scope of work for the project. Even though it was written by someone who is no longer in Alpena, you need to either follow it or file an amended scope of work. Your project appears to be going well; with some extra effort you can probably meet the goals and objectives set forth in the proposal. My final evaluation report will recap the efforts you made in meeting each one.

Rather than review in detail everything we discussed, let me ask you to review the proposal with your staff and plan how you can accomplish the goals and objectives. Of particular concern to me were the following:

- review and update of the literacy task analyses by the internal project advisory committees
- evidence that instruction is based on the reviewed and revised task analyses using workplace (or simulated workplace) materials

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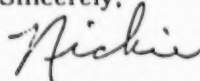
An Equal Opportunity University

- feedback on program activities by the project advisory committees within all companies (whether or not classes are being held at the moment)
- periodic meetings of the external oversight committee to keep everyone informed and to encourage new classes
- formalizing procedures for using portfolios in program evaluation
- revising student surveys to get better information
- using TABE locator tests to ensure that students take the correct level of the TABE survey (unless you are sure that all students are functioning at the A or advanced level)
- use of informal (criterion referenced) assessments of skills taught at the beginning and end of classes
- impact data to show that the classes have had some positive effect on the companies (here again your project advisory committees could help)
- more flexible scheduling of class durations based on company and student needs (16 hours may be too short to show long term growth)
- opportunity for all sites to use *customized* computer-assisted instruction (especially since you are ordering hardware with grant funds); we could help you with selecting some software if you wish.

You are doing many fine things, such as your problem solving and math courses using workplace needs and materials as the basis for the curriculum. Your newsletter is excellent; I am pleased to be able to contribute. Your partners seem to be very committed (which is fantastic), and your instructors are topnotch.

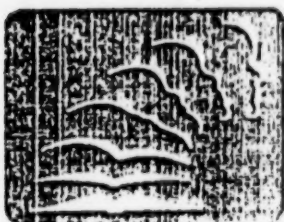
As I said, my job is to make you look good so don't hesitate to ask for help. Since you are going to do the data analyses for pre- and posttests, I can spend more time helping you figure out evaluation strategies. I will be eager to hear about your visit to I.U.

Sincerely,



Eunice N. Askov
Professor of Education
Director, Institute for the
Study of Adult Literacy

P.S. Enclosed is a draft of an article for your newsletter. Feel free to modify it to fit your needs and space.



INSTITUTE
FOR THE STUDY
OF ADULT
LITERACY

August 16, 1994

Don MacMaster
Alpena Community College
666 Johnson Street
Alpena, MI 49707

Dear Don:

Thanks for your helpfulness at a busy time for you. The trip last week went very well. I had a good opportunity to talk to the currently active partners (except Omni), students, and instructors. I also appreciate the time with the top college administrators.

You have addressed most of my concerns expressed in my October 20, 1993, letter with regard to deviations from the proposal. You have taken corrective action or justified what you are doing.

You know my concern with the apparent under-utilization of the laptop computers which were ordered for the project. Using computer "tools" or applications such as Kendall Sumerix did at Fletcher, is certainly a wonderful way to teach math skills. We also discussed possibilities of using customizable software and appropriate criterion-referenced assessment software. Again, please let me know if we can give you any help along this line.

Please thank your staff and all others who took the time to talk to me last week. You have every right to feel proud of your highly successful project! I look forward to receiving your final report so that I can write the accompanying evaluation report.

Sincerely,

Eunice N. Askov

Eunice N. Askov
Professor of Education
Director, Institute for the
Study of Adult Literacy

Enclosure

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APPENDIX B

**Alpena COMMUNITY COLLEGE PROJECT
Workplace Literacy Project
Learner Group Interview Guide
August 10-12, 1994**

1. Place of Employment:
2. Name of Class:
3. How satisfied were you with the class? Why?
4. What was the most important part? Least Important?
5. What did you gain from the class?
6. How did the class help you with your job?
7. How did the class help you outside the job?
8. What was most difficult for you with the class? Easiest?
9. What did you like best about the class? Least?
10. Did the class help you with getting an advancement or a better job?

11. How did your fellow workers feel about you taking the class?
12. Would you recommend others to take the class?
13. Did you get support from your supervisor to attend the class?
- 14. Do you look forward to any more classes?
15. Do you do any more reading (math or writing) at work than you did before the class? Any more at home? If yes, explain.
16. Other comments.

**Alpena COMMUNITY COLLEGE PROJECT
Workplace Literacy Project
Supervisor/Training Director Interview Guide
August 10-12, 1994**

1. Name of Company:
2. Name of Class:
3. Number of workers who participated _____
4. How satisfied were you with the class(es)? Why?
5. How did the workers benefit?
6. How did the company benefit?
7. What were the shortcomings of the class(es)?
8. What changes have you noticed in the workers who participated? (productivity, quality, safety, absenteeism, retention)
9. Has participation in the class(es) affected their chances for advancement?
10. How much did the workers talk to you about the class(es)?

11. How did the workers who participated feel about the class(es)?
12. How did the other workers feel about the class(es)?
13. How does this training compare with training the company has done or could do itself?
14. Would you recommend the company continue this kind of training?
15. What are the advantages and disadvantages of working with the College in offering the class(es)?
16. Other comments:

**Alpena COMMUNITY COLLEGE PROJECT
Workplace Literacy Project
Interview Guide For Partners (Training Director)
August 10-12, 1994**

1. How satisfied are you with the project? Why?
2. What benefits have you obtained? How did the workers benefit? (productivity, quality, safety, absenteeism, retention)
- 3. Did your expectations change during the course of the project? How?
4. What were your major disappointments?
5. How effective was the partnership between industry and the College?
6. How cost-effective was the project?
7. How do you feel about continuing the project?
8. What changes do you see in the near future that would change the needs of your workers for training?
9. Would you recommend this training program to your colleagues in other companies?

**Alpena COMMUNITY COLLEGE PROJECT
Workplace Literacy Project
Staff Interview Guide
August 10-12, 1994**

1. How satisfied are you with the project?
2. What were the greatest satisfactions? Least?
3. What factors helped with the success of the project?
4. What factors acted as deterrents to the project?
5. To what extent were there agreements on the goals among all stakeholders?
6. What do you see as the major outcomes? Major disappointments?
7. What factors helped with development of the program? What was a waste of time?
8. How do you feel about your linkage with industry? Will it continue?
9. What was the most difficult part of the project?

10. What would you change?

11. How cost-effective was it?

12. What are your plans for the future regarding this program?